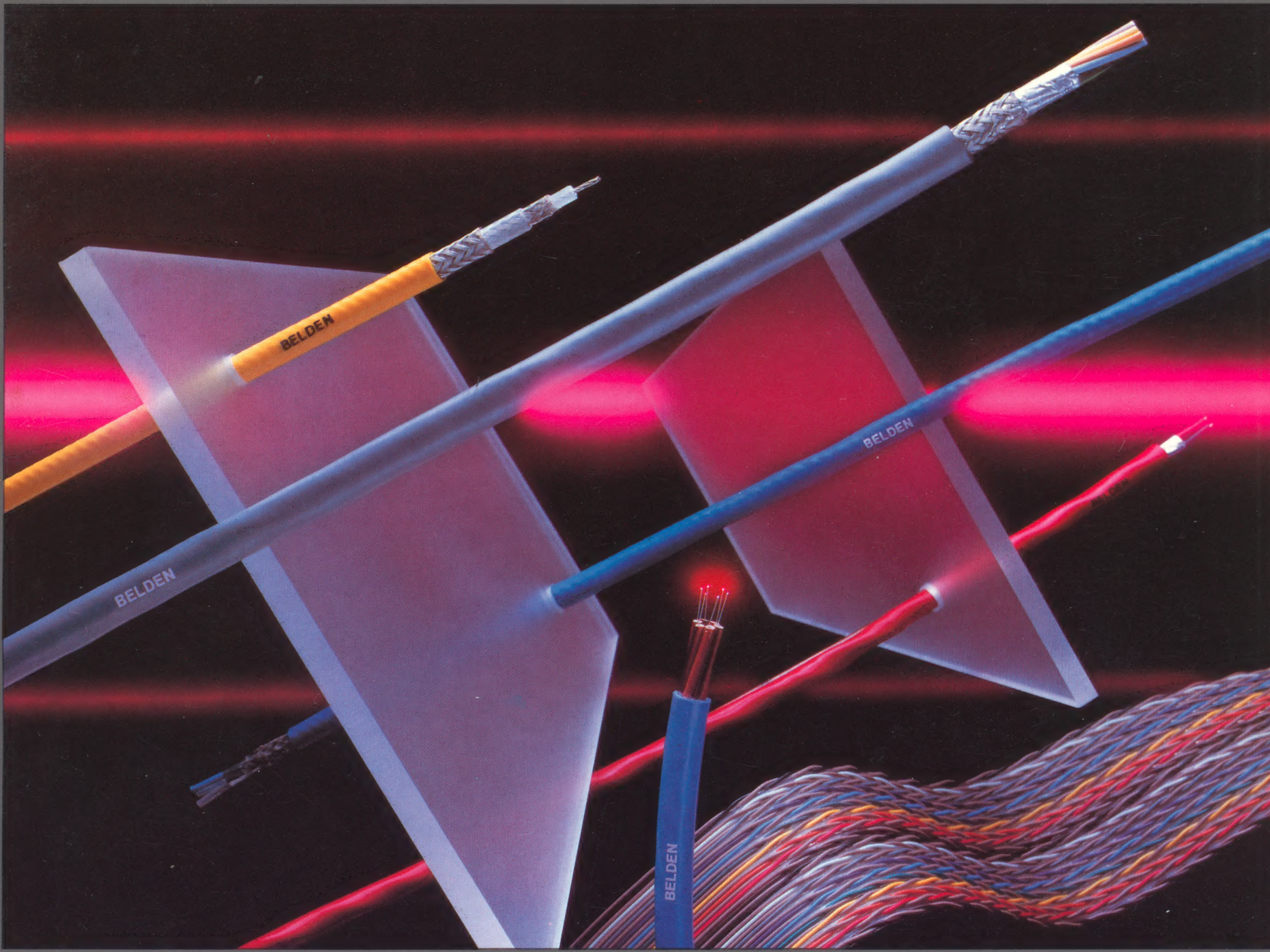
Master Catalog 885

Belden

Electronic Wire and Cable



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Your Comprehensive Source for Electronic Wire and Cable

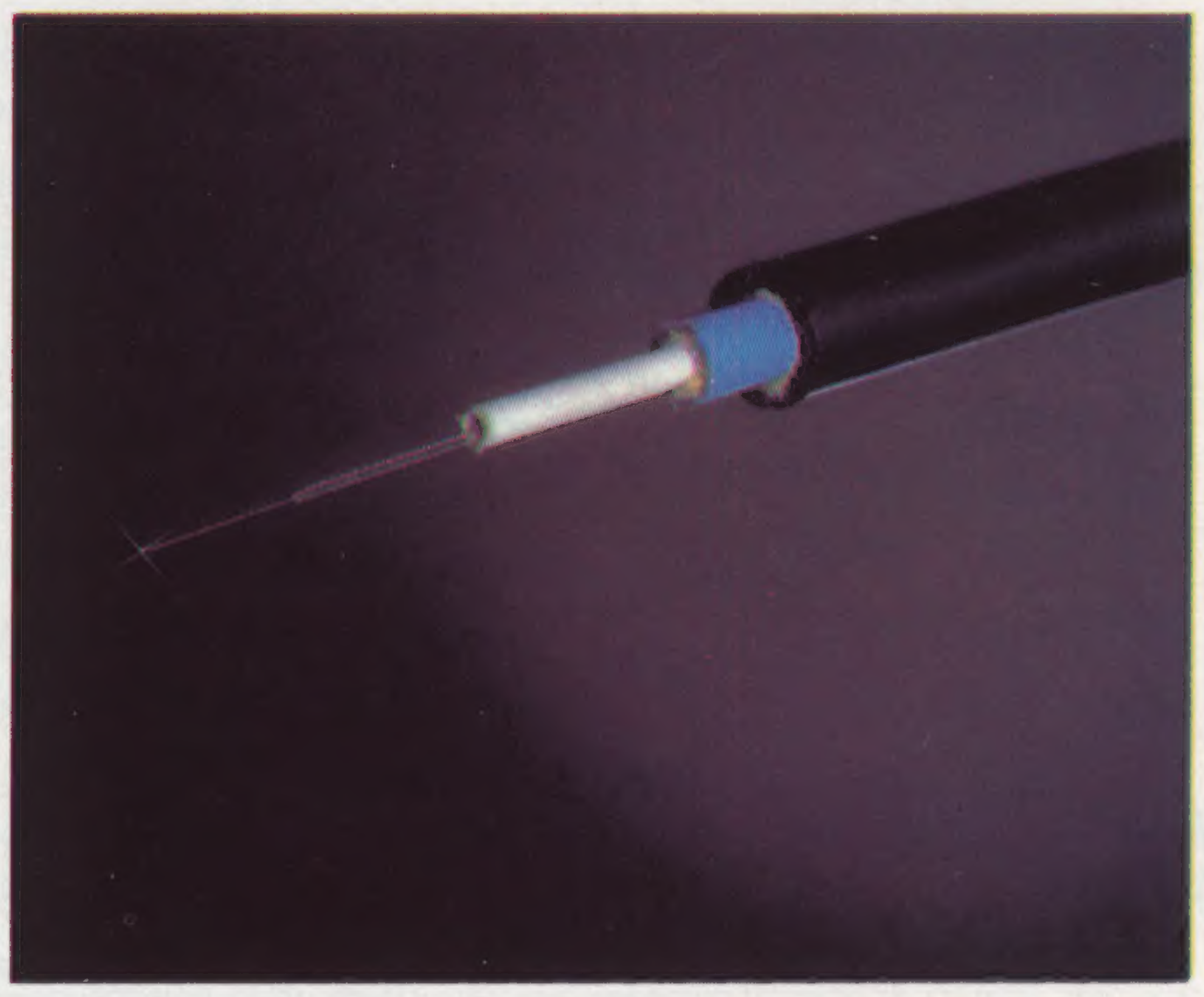
In one sense, Belden's master catalog is a chronicle of events and developments within the electronic wire and cable industry. More than anything, our broad product line reflects Belden's cumulative years of experience; as our proprietary designs evolve within their intended markets, they see applications never envisioned by our engineers. As a result, many of these cables now serve as industry standards. Each time this cycle repeats, we broaden our scope of expertise, building on past experience to provide the most comprehensive line of electronic wire and cable available anywhere. Whether your applications require multi-conductor, paired, coaxial, flat, fiber optic, plenum, high-temperature or special-application cables, Belden can match the precise cable design to your environmental requirements.

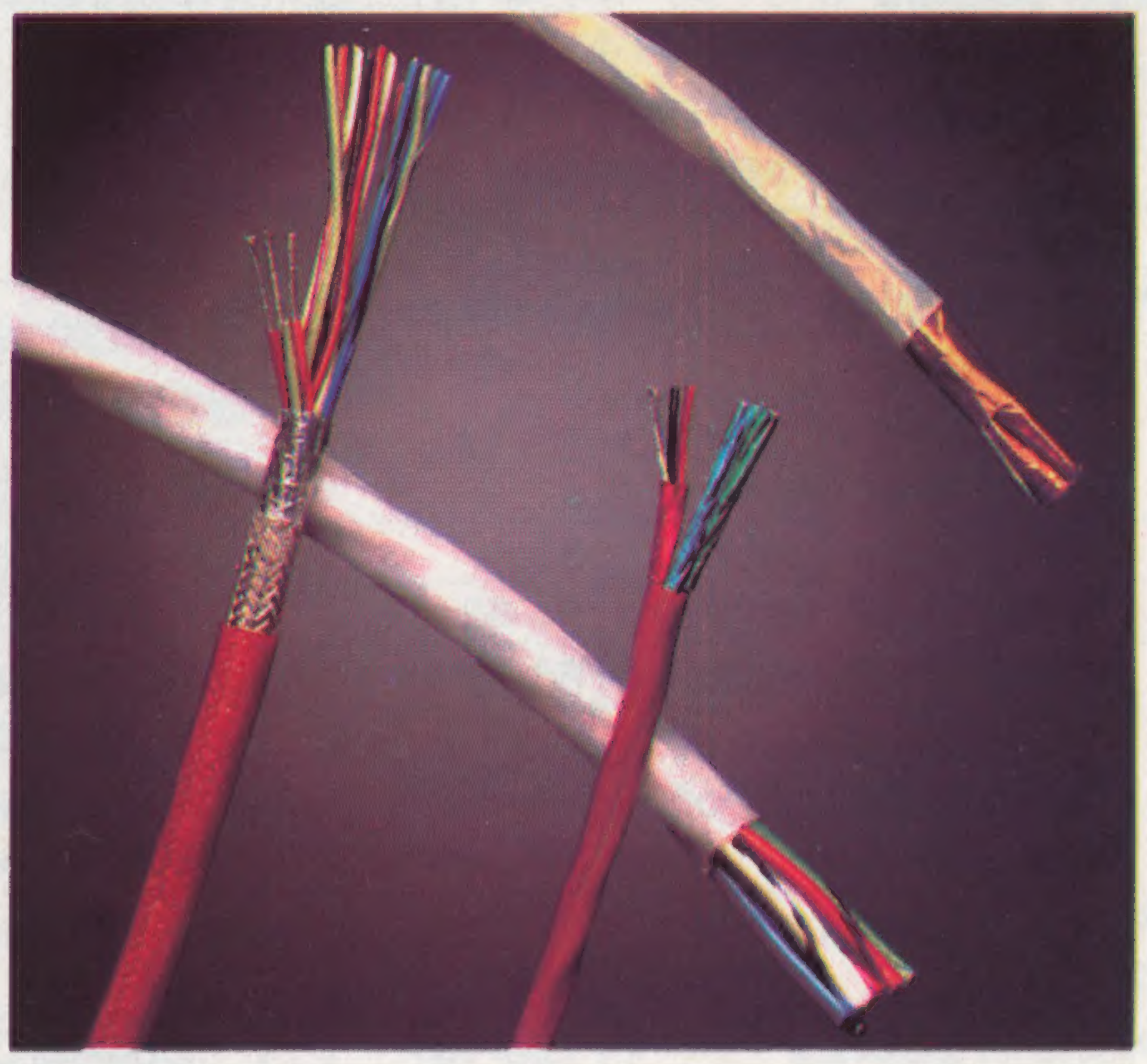
Commitment to Quality

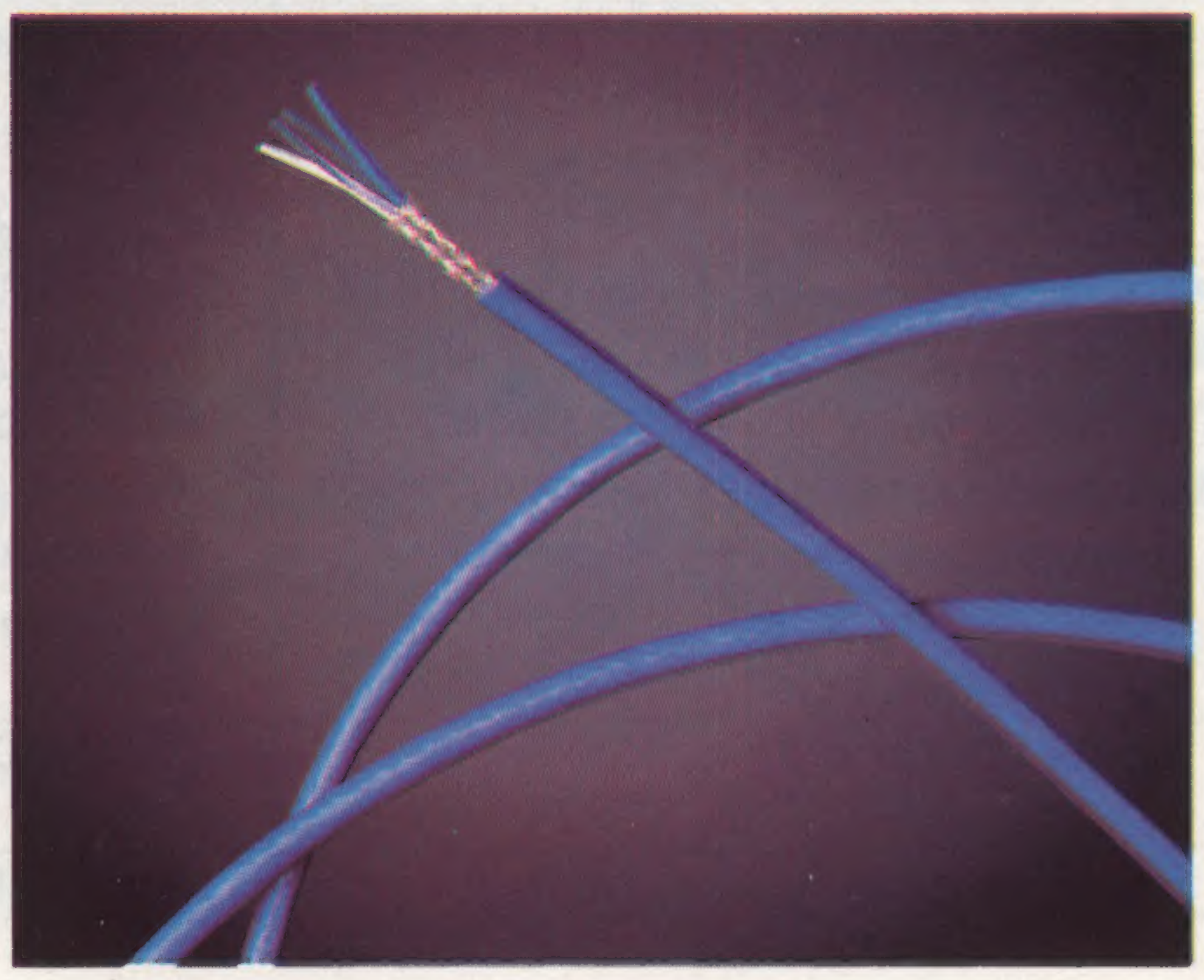
As technologies evolve and converge, traditional standards of quality and performance no longer apply to the marketplace. At Belden, our Quality Assurance Department redefines these standards, often imposing new and more rigorous performance criteria than industry demands. Our manufacturing, engineering and purchasing departments have formulated an eight-point Quality Assurance Program through which Belden is setting a new level of performance criteria for the electronic industry.

Our dedication to total quality assurance in all functional disciplines defines our governing responsibility: to instill product quality that meets the most demanding requirements in the wire and cable industry. This is our commitment.

Far Right ▶
Belden offers the industry's largest selection of multi-conductor, coaxial and flat cable.

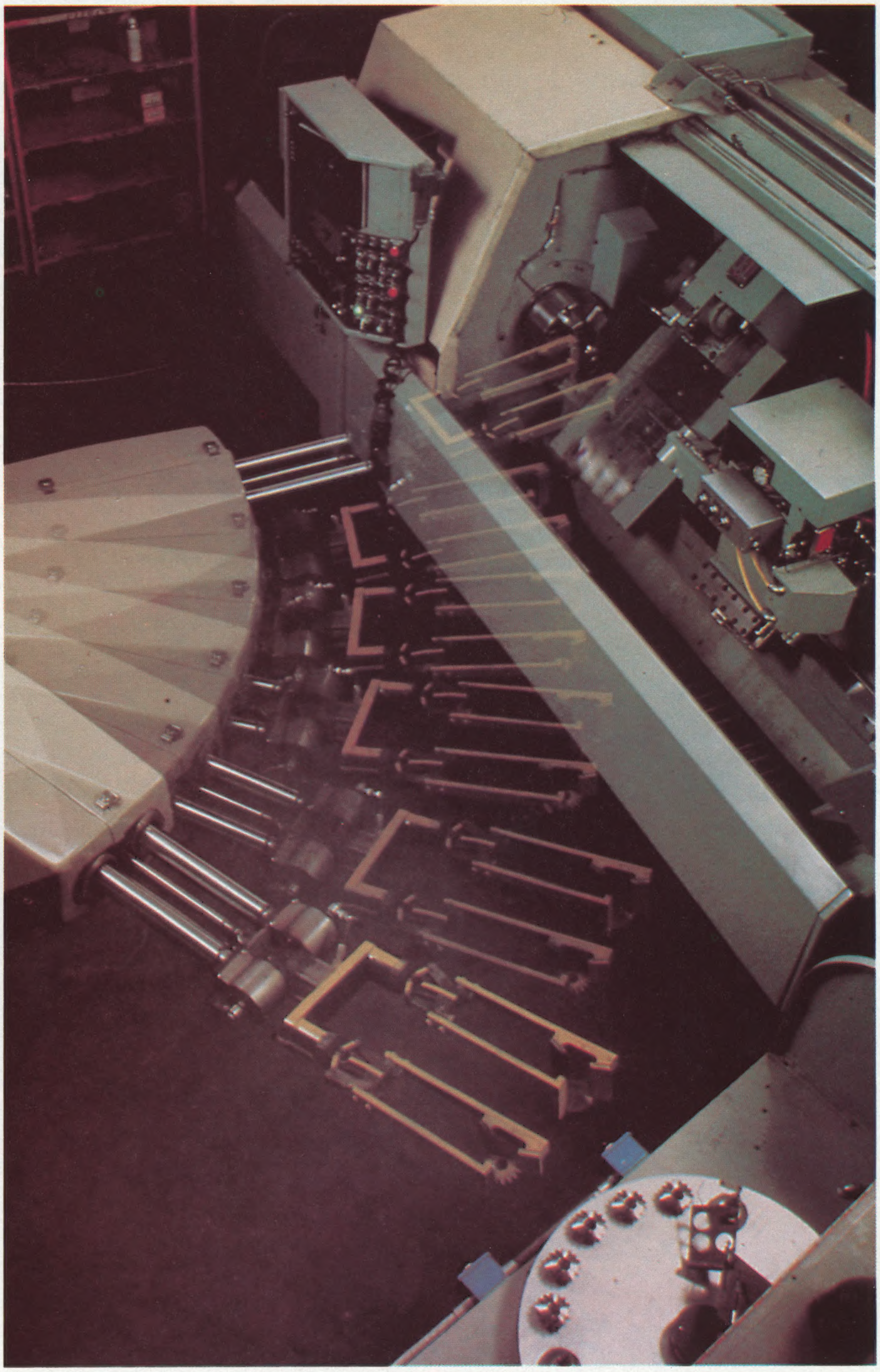

The ability to process a wide range of copper, fiber optic and hybrid cables represents a unique Belden capability.


Belden® plenum cables for commercial building installations save time and money on-site.

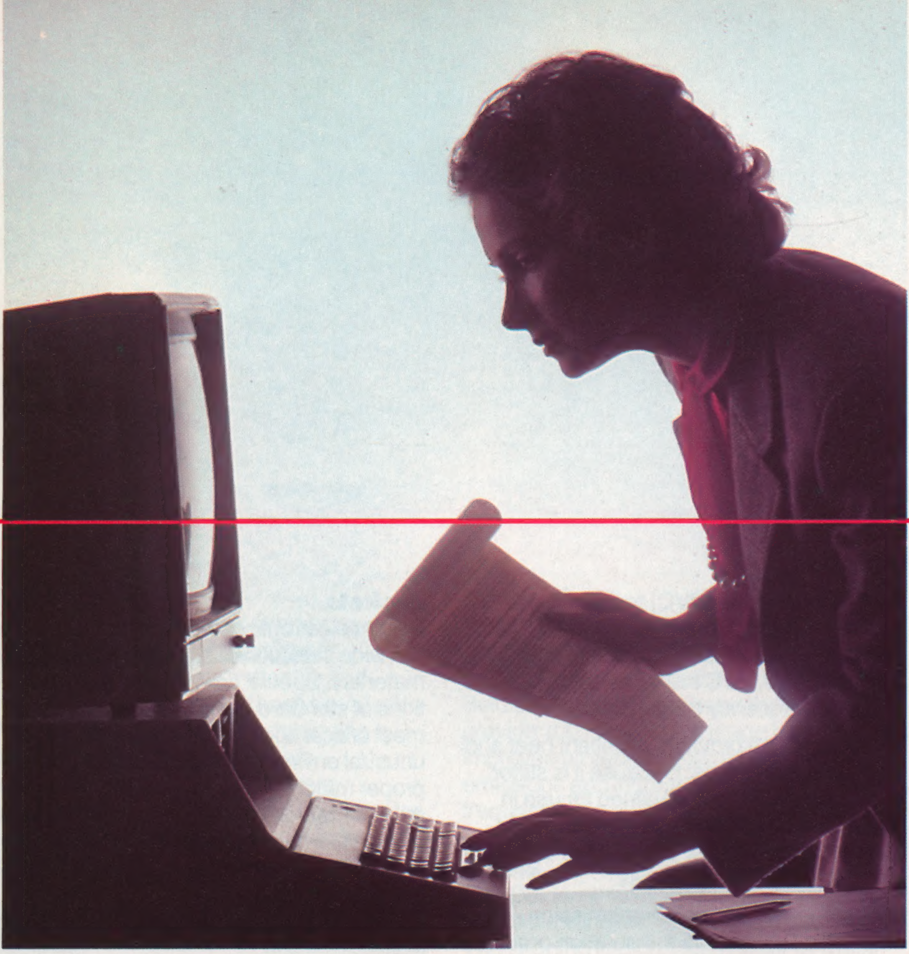

High-temperature cables and precision aircraft wire for military and commercial avionics all feature special insulations for critical environments.

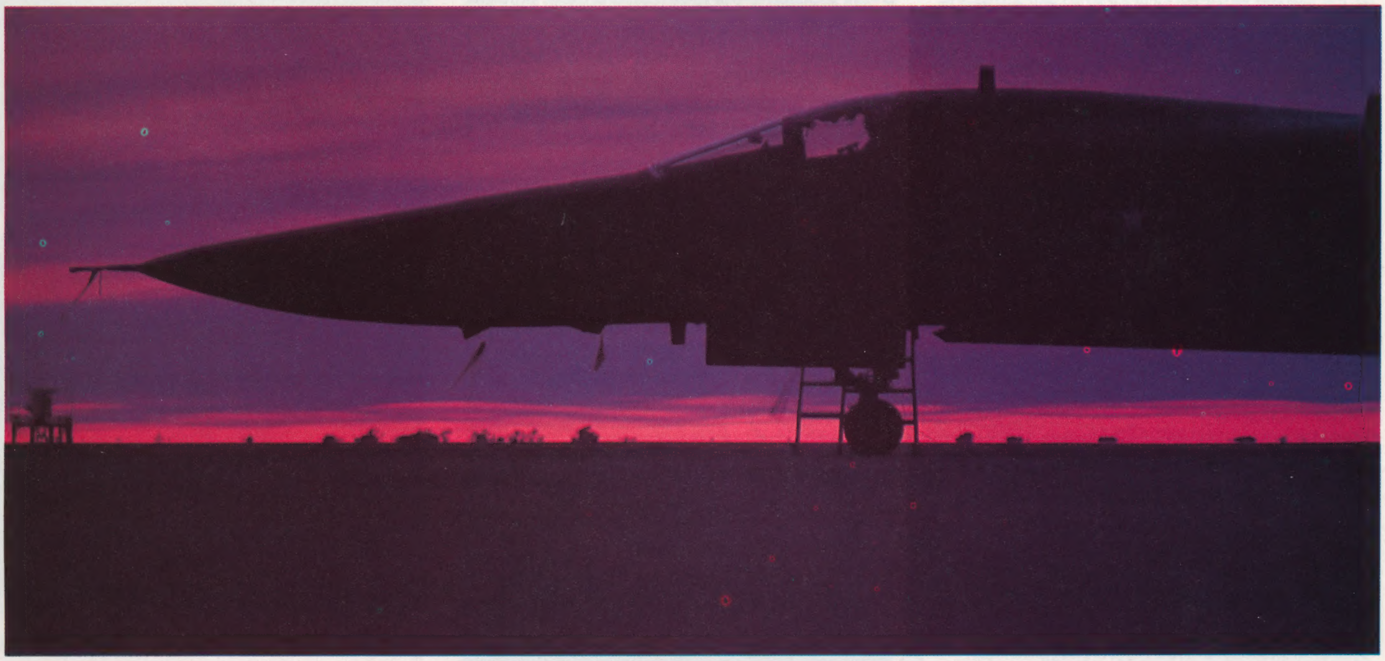
Transforming Industry for the Future

In the changing electronic industry, digital, audio, video, broadcast, instrumentation, control, government and fiber optic products must provide cost-effective performance; they must provide value within the parameters of changing industrial requirements. At Belden, meeting these emerging demands means more than responding to market forces. Through an abiding commitment to research and development, Belden anticipates future needs with specific solutions to the problems of industry.



Special jacket and conductor materials provide durability for heavy industrial applications, such as robotics, machine tools, petrochemical refineries, steel mills, and pulp and paper plants. Belden shield designs also provide protection against interference from fluorescent lights and motor control circuits.





Sophisticated shield designs provide protection from signal loss in data transmission applications (top). Belden® military/aircraft cable is used commonly in communications and ground support applications including TEMPEST requirements (center). Superior loss return characteristics make Belden® TV camera cable ideal for controlling, powering and transmitting sound and picture information for monochrome and color TV cameras (left).

Functional Cable Construction

Conductors
Belden is one of the few cable manufacturers to draw and anneal its own conductors. Through this exacting attention to conductor consistency, Belden can ensure signal integrity, as well as the appropriate physical characteristics for both industrial and digital applications.

We manufacture a broad range of stranded conductors for varying degrees of flexibility and flex life; very fine stranded tinsel conductors, for instance, provide limpness and extended flex-life in small diameter cables. For exceptional tensile strength, Belden offers copper-covered steel conductors that withstand up to twice the physical strain of copper conductors. We also offer special conductor materials and configurations for use in hostile environments.

At the Belden wire mill, conductors are drawn and annealed to ensure consistent high quality.

Insulations
Each insulation Belden offers is formulated in-house to provide superior performance under a variety of hostile environmental conditions, while meeting the electrical requirements associated with specific applications. Belden cables are available in a number of UL listed and CSA approved insulation compounds:

Polyethylene insulation is lightweight, water-resistant, chemically-inert, and easy to strip. Since its low dielectric constant allows for low capacitance and low electrical loss, it is recommended for audio and radio frequency applications.

Polyvinyl chloride (PVC) resists flames, oil, ozone, sunlight, and most solvents. Since it has a higher dielectric constant than polyethylene, PVC insulation is best suited to audio frequency transmission.

Polypropylene provides excellent heat and abrasion-resistance. Because it is stiffer than polyethylene, it is valued for use in manufacturing miniature components where, even with low overall diameters, it permits very low signal loss.

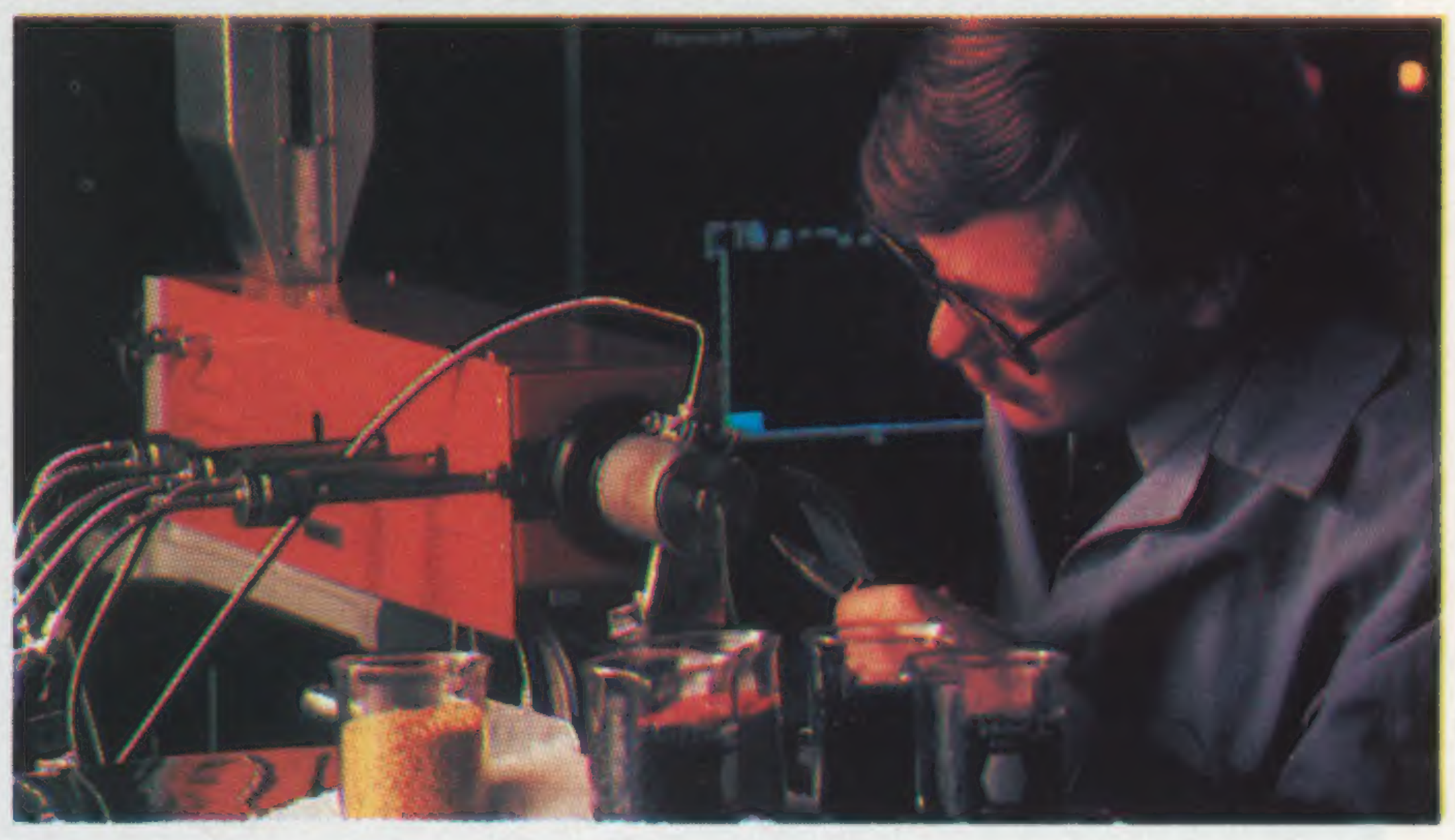
For computer and data transmission, Belden's DATALENE® insulation provides a low dielectric constant and a heat dissipation factor that's well suited to high-speed, low-distortion data handling. DATALENE is crush-resistant, lightweight and offers good performance characteristics over a wide range of temperatures.

Teflon◑-insulated Plenum and High-Temperature Cables are ideal for data communications, instrumentation/control and other commercial and industrial applications. Plenum cables offer significant cost savings since they eliminate the need for conduit and reduce installation time. Belden® Plenum Cables are UL classified for low flame and smoke in non-conduit plenum use.

Jackets
Belden electronic cables are manufactured in a wide selection of standard jacketing materials. Special compounds and variations of standard compounds are used to meet critical application requirements and unusual environmental conditions. The proper matching of cable jackets to environment can prevent deterioration due to such elements as solvents, intense heat and cold, oil, ozone, mechanical abuse, impact, and sunlight.

Our wide selection of jacketing compounds—polyvinyl chloride, polyethylene, Teflon, neoprene, Hypalon◑, silicon rubber and natural rubber—enables you to meet specific environmental requirements with appropriate cable designs.

For more information on insulating and jacketing materials, see the Technical Information Section in the back of this catalog.

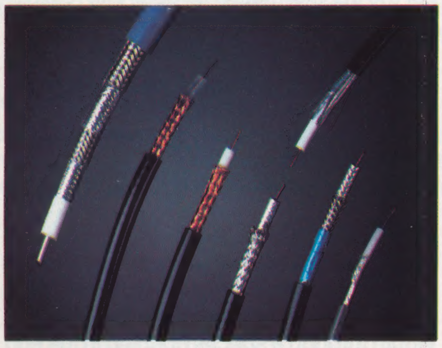

The evaluation of materials for special application electronic wire and cable jacketing.

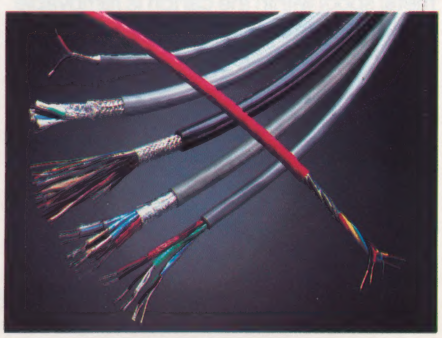
Belden plenum cables for commercial building installations save time and money on-site.

◑DuPont trademark

Shielding
Over the years, Belden engineers have pioneered a number of significant breakthroughs in shield materials and construction techniques. These have led to the development of some outstanding proprietary designs for both data transmission applications—where shielding prevents signal leakage—and for blocking radiated interference in industrial applications.

Belden® shielded flat cable


Belden® shielded coaxial cable

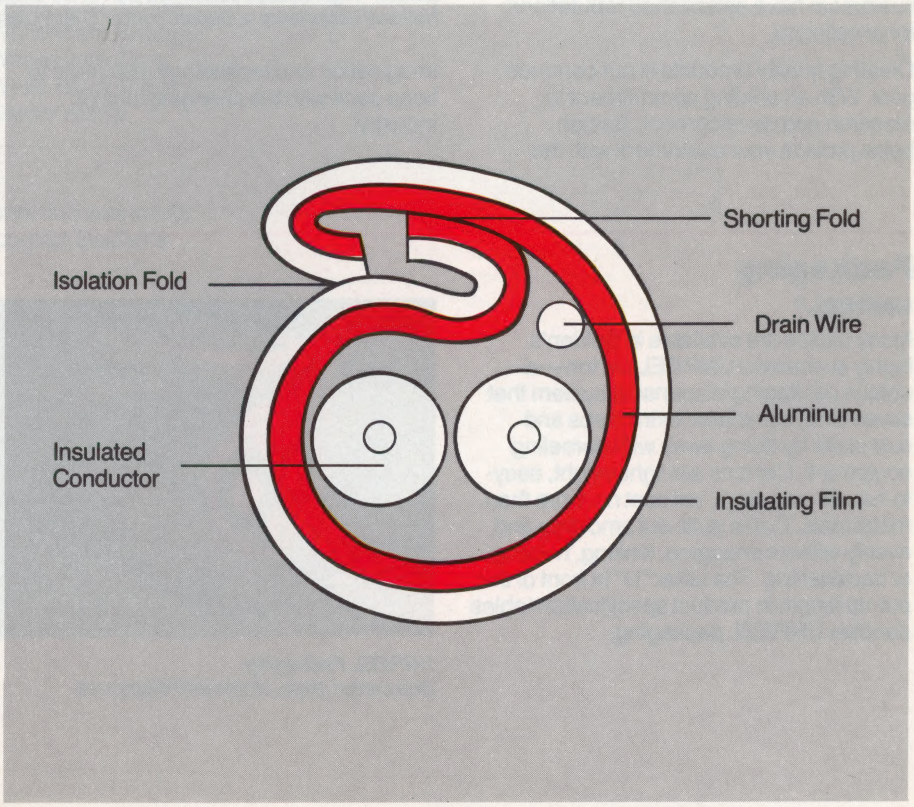

Belden® shielded multi-conductor cable.

Beldfoil®
Belden was the first to develop an aluminum/polyester foil for use as a cable shield and was awarded a patent for the Beldfoil design. Beldfoil was the first to provide 100% shield coverage for improved protection against radiated emissions and ingress at audio and radio frequencies.

Z-Fold
This Belden shielding innovation employs both a shorting fold and an isolation fold. The shorting fold provides metal-to-metal contact, while the isolation fold prevents adjacent shields from shorting to one another. The Z-Fold also improves voltage breakdown characteristics when compared to ordinary shorting folds.

Duofoil®
The Duofoil shield consists of an aluminum-polyester-aluminum laminate wrapped around the cable's dielectric core. In addition to providing 100% physical coverage, the extra layer of aluminum improves shield reliability and flex-life while providing an additional EMI barrier.

DuoBond II®
The DuoBond II shield consists of essentially the same construction as Duofoil with an extra layer of adhesive that bonds the shield to the dielectric core. The advantages of bonding include faster, more reliable termination and added protection against moisture and contamination.



Belden improves high frequency performance with the "Z-Fold."

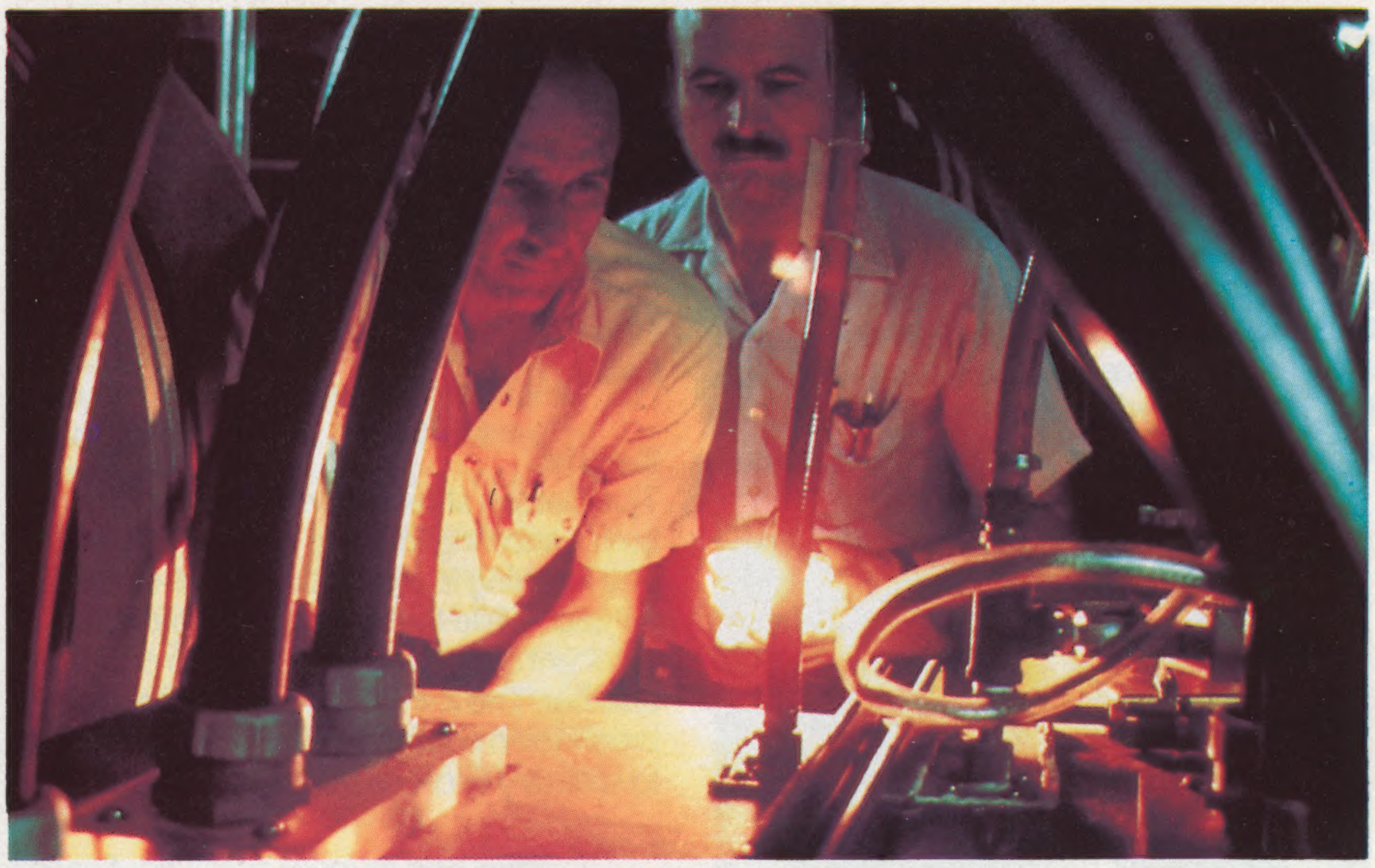
Building On Innovation

Our commitment to innovation is manifest in our Technical Reserach Center in Geneva, Illinois. Here, more than 100 scientists, engineers and technicians work to develop new cables, test new materials and help OEMs improve product performance with applied cable expertise. Belden research teams search continuously for more cost-efficient materials and construction methods that will help maintain signal integrity in the face of severe heat, cold, stress, moisture, and corrosive conditions.

Embracing the Future

Today, converging technologies and complex system designs mandate a new approach to market needs. Because system failure represents proportionately greater losses, the need for reliable components is more accute than ever. At Belden, we provide a consistent level of quality, a foundation on which our customers have established reputations for excellence.

Creating quality products is our common goal. With an abiding commitment to research and development, Belden helps provide your customers with the imagination and technology they need to keep pace with the changing face of industry.



Belden® high-voltage cables are part of the proton beam extraction power supply at Argonne National Laboratory, a Department of Energy research facility near Chicago.

For the transformation of ideas into reality, there is no equal to Belden performance and value. We invite your inquiries.

Belden Quality: A Tradition of Excellence.

Packaging

UNREEL®

Many cables are available in Belden's highly successful UNREEL carton—a unique packaging/dispensing system that saves time, eliminates extra steps and cuts costs by doing away with dereeling equipment. Cartons are lightweight, easy-to-handle and store, yet cost no more than metal reels. Cable pulls out smoothly and evenly without snagging, kinking, twisting or backlashing. The letter "U" in front of the put-up length in product specification tables denotes UNREEL packaging.

UNREEL Packaging
One carton ships, stores and dispenses.

Convert-A-Pak™

Belden's Convert-A-Pak dispenser is available for selected twin-lead and rotor cables. Wire can be fed out to the desired length through a special opening in the end of the Convert-A-Pak. And the special metal spool within the carton is removable for further convenience.

Hook-Up Wire

The hook-up wire products in this section are listed according to U.L. style numbers (ascending order), and Mil-spec numbers.

Belden hook-up and lead wire products are manufactured in a variety of materials, sizes and designs to meet rigid industry and government specifications. Applications range from inter-connection circuits to use in the internal wiring of computer and data processing equipment.

All hook-up wire products in this section are PVC insulated. PVC is flame and ozone resistant as well as being inert to most chemicals, oils and solvents. Teflon® insulated hook-up wire products can be found on pages 141-143.

Color Codes

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black
11 Tan
12 Pink
13 Dark Blue
14 White/Black
15 White/Red
16 White/Green
17 White/Yellow
18 White/Blue
19 White/Brown
20 White/Orange
21 White/Gray
22 White/Violet
23 White/Black/Red
24 White/Black/Green
25 White/Black/Yellow
26 White/Black/Blue
27 White/Black/Brown
28 White/Black/Orange
29 White/Black/Gray
30 White/Black/Violet
189 Green/Yellow

Custom Design Center

If you have a new or unusual application or you cannot find wire in this section which meets your technical requirements, contact Belden's Product Engineering Group. Phone 317/983-5200.

®DuPont trademark

UL Style 1007 300V – 80°C

Product Description
Tinned copper, PVC insulated. Rated –10°C to +80°C, 300V rated 600V peak for electronic circuits, internal wiring of electronic and electrical equipment.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	
 ЯU 1007	**9930†**	100 1000	30.5 304.8	.16 1.5	30 (7x38)	.015	.38	.044	1.12	1-5, 7-10, 13 See color code chart on page 11.

UL and CSA Dual Rated Wire
UL Style 1007 300V – 80°C (CSA Type TR-64, 90°C)
UL Style 1569 300V – 105°C (CSA Type TR-64, 105°C)

Product Description
Tinned copper, PVC insulated. Rated –10°C to +105°C, 300V rated 600V peak for electronic circuits. Internal wiring of electronic and electrical equipment.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	
 ЯU 1007 and 1569	**9928†**	100 1000	30.5 304.8	.2 1.8	28 (7x36)	.016	.41	.047	1.19	1-5, 7-10, 13 See color code chart on page 11.
	9926†	100 1000	30.5 304.8	.3 2.3	26 (7x34)	.016	.41	.051	1.30	1-5, 7-10, 13 See color code chart on page 11.
	9923†	100 1000	30.5 304.8	.3 3.1	24 (7x32)	.016	.41	.056	1.42	1-5, 7-10, 13 See color code chart on page 11.
	9921†	100 1000	30.5 304.8	.4 4.0	22 (7x30)	.016	.41	.062	1.57	1-5, 7-10, 13 See color code chart on page 11.
	9919†	100 1000	30.5 304.8	.6 5.4	20 (7x28)	.016	.41	.069	1.75	1-5, 7-10, 13 See color code chart on page 11.
	9918†	100 1000 5000◆	30.5 304.8 1524.0	.8 7.6 36.6	18 (16x30)	.016	.41	.079	2.01	1-5, 7-10, 13 See color code chart on page 11.
	9916†	100 1000	30.5 304.8	1.14 11.2	16 (26x30)	.016	.41	.092	2.34	1-5, 7-10, 13 See color code chart on page 11.

†Passes the VW-1 Vertical Wire Flame Test.
◆ Spools may contain more than one piece: Minimum length of 500 feet.
For High Temperature Hook-Up Wire see pages 141-143.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	

UL Style 1015 600V – 105°C (CSA Type TEW)

Product Description
Tinned copper, PVC insulated. Rated –40°C to +105°C, 600V 2500V peak for electronic circuits, internal wiring of electronic and electrical equipment.

Description	Trade & U.L. Style Number	ft.	m	Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness Inch	Insulation Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Stock Colors
1015	**9924**†	100 1000	30.5 304.8	.6 5.3	24 (7x32)	.031	.79	.088	2.24	1-5, 9, 10, 13 See color code chart on page 11.
	8920†	100 1000 5000◆	30.5 304.8 1524.0	.7 6.4 30.3	22 (7x30)	.031	.79	.093	2.36	1-5, 9, 10, 13 See color code chart on page 11.
	8919†	100 1000 4000◆	30.5 304.8 1219.2	.8 7.8 30.3	20 (10x30)	.032	.81	.100	2.54	1-5, 9, 10, 13 See color code chart on page 11.
	8918†	100 1000 4000◆	30.5 304.8 1219.2	1.0 10.3 40.0	18 (16x30)	.031	.79	.110	2.79	1-5, 9, 10, 13, 189 See color code chart on page 11.
	8917†	100 500 1000 4000◆	30.5 152.4 304.8 1219.2	1.8 7.4 14.3 58.0	16 (26x30)	.031	.79	.123	3.12	1-5, 9, 10, 13, 189 See color code chart on page 11.
	8916†	100 500	30.5 152.4	2.3 10.3	14 (41x30)	.031	.79	.138	3.51	1-5, 9, 10, 13, 189 See color code chart on page 11.
	9912†	100 250	30.5 76.2	3.2 7.6	12 (65x30)	.030	.76	.158	4.01	1-5, 9, 10, 13 See color code chart on page 11.
	9910†	100 250	30.5 76.2	4.5 11.01	10 (65x28)	.030	.76	.183	4.65	2, 4, 9, 10 See color code chart on page 11.

†Passes the VW-1 Vertical Wire Flame Test.
◆Spools may contain more than one piece: Minimum length of 500 feet.

Hook-Up Wire

Description	Trade & U.L. Style Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness Inch	Insulation Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Stock Colors

UL Style 1028 600V – 105°C (CSA Type TEW)

Product Description
Tinned copper, PVC insulated.

 1028	**9908†**	100 250	30.5 76.2	7.7 18.4	8 (84x27)	.045	1.14	.250	6.35	2, 4, 9, 10 See color code chart on page 11.

UL Style 1061 300V – 80°C (CSA Type S-R PVC)

Product Description
Tinned copper, semi-rigid PVC insulated. (Solid Conductors suitable for wire wrap applications.)

 1061	**9978†**	100 1000	30.5 304.8	.1 .8	30 (Solid)	.010	.25	.030	.76	1-5, 7-10, 13 See color code chart on page 11.
	9987†	100 1000	30.5 304.8	.1 1.1	30 (7x38)	.010	.25	.032	.81	1-5, 7-10, 13 See color code chart on page 11.
	9977†	100 1000	30.5 304.8	.1 1.0	28 (Solid)	.010	.25	.033	.84	1-5, 7-10, 13 See color code chart on page 11.
	9986†	100 1000	30.5 304.8	.6 1.4	28 (7x36)	.010	.25	.035	.89	1-5, 7-10, 13 See color code chart on page 11.
	9976†	100 1000	30.5 304.8	.2 1.6	26 (Solid)	.010	.25	.036	.91	1-5, 7-10, 13 See color code chart on page 11.
	9985†	100 1000	30.5 304.8	.5 1.8	26 (7x34)	.010	.25	.039	.99	1-5, 7-10, 13 See color code chart on page 11.
	9975†	100 1000	30.5 304.8	.2 2.3	24 (Solid)	.010	.25	.040	1.02	1-5, 7-10, 13 See color code chart on page 11.

†Passes the VW-1 Vertical Wire Flame Test.

UL Style 1061 300V – 80°C (CSA S-R PVC)

Product Description
Tinned copper, semi-rigid PVC insulated.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) and Type Designation	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	
UL 1061	**9984**†	100 1000	30.5 304.8	.3 2.5	24 (7x32)	.010	.25	.044	1.12	1-5, 7-10, 13 See color code chart on page 11.
	9983†	100 1000	30.5 304.8	.4 3.3	22 (7x30)	.010	.25	.050	1.27	1-5, 7-10, 13 See color code chart on page 11.
	9982†	100 1000	30.5 304.8	.5 4.7	20 (7x28)	.010	.25	.057	1.45	1-5, 7-10, 13 See color code chart on page 11.
	9981†	100 1000	30.5 304.8	.7 7.3	18 (19x30)	.010	.25	.066	1.68	1-5, 7-10, 13 See color code chart on page 11.
	9980†	100 1000	30.5 304.8	1.1 11.2	16 (19x28)	.010	.25	.078	1.98	1-5, 7-10, 13 See color code chart on page 11.

Type MW-MIL-W-76B-PVC 1000V – 80°C

Covers single conductor, PVC insulated hook-up wire for internal wiring of electrical and electronic equipment.

Product Description
Tinned copper, PVC insulated, medium wall. The extruded PVC insulation is flame and ozone resistant and is inert to most chemicals, oils and solvents.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) and Type Designation	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	
	8538†	100 1000	30.5 304.8	.3 2.9	24 (Solid) MW-C24 (1) U	.017	.43	.055	1.39	1-13 See color code chart on page 11.
	8525†	100 1000	30.5 304.8	.3 3.1	24 (7x32) MW-C24 (7) U	.017	.43	.058	1.47	1-22 See color code chart on page 11.
	8530†	25 100 1000	7.6 30.5 304.8	.1 .4 3.7	22 (Solid) MW-C22 (1) U	.017	.43	.059	1.50	1-13 See color code chart on page 11.
	8524†	25 100 1000	7.6 30.5 304.8	.2 .4 4.1	22 (7x30) MW-C22 (7) U	.017	.43	.064	1.63	1-13 (25) 1-30 (100) 1-30 (1000) See color code chart on page 11.
	8529†	25 100 1000	7.6 30.5 304.8	.2 .5 5.1	20 (Solid) MW-C20 (1) U	.017	.43	.066	1.68	1-13 See color code chart on page 11.

†Passes the VW-1 Vertical Wire Flame Test.
*Certification Available Upon Special Request.

Type MW-MIL-W-76B-PVC 1000V –80°C (cont'd.)

Product Description

Tinned copper, PVC insulated, medium wall. The extruded PVC insulation is flame and ozone resistant and is inert to most chemicals, oils and solvents.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) and Type Designation	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	
	8523†	25 100 1000	7.6 30.5 304.8	.2 .6 5.6	20 (10x30) MW-C20 (10) U	.017	.43	.070	1.78	1-13 (25) 1-30 (100) 1-30 (1000) See color code chart on page 11.
	8522†	25 100 1000	7.6 30.5 304.8	.2 .8 7.8	18 (16x30) MW-C18 (16) U	.017	.43	.080	2.03	1-13 (25) 1-30 (100) 1-30 (1000) See color code chart on page 11.
	8521†	100 1000	30.5 304.8	1.2 11.7	16 (26x30) MW-C16 (26) U	.019	.48	.098	2.49	1-22 See color code chart on page 11.
	8520†	100 1000	30.5 304.8	1.7 17.3	14 (41x30) MW-C14 (41) U	.018	.46	.111	2.82	1-22 See color code chart on page 11.
	8527†	100 1000	30.5 304.8	2.8 25.0	12 (65x30) MW-C12 (65) U	.020	.51	.128	3.25	1-10 See color code chart on page 11.

(Type B) MIL-W-16878D–PVC–600V–105°C*

Covers insulated wire for internal wiring of meters, panels and electrical or electronic equipment at temperatures to 105°C. For shielded cables using Type B conductors see pages 194-195. For high temperature MIL-Spec cables see pages 139, 140, 145, 146. For 200°C MIL-Spec hook-up wire see pages 141-143.

Product Description

Tinned copper, PVC insulated.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) and Type Designation	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	
	8597†	100 1000	30.5 304.8	.2 1.1	28 (7x36) B-28	.010	.25	.035	.89	1-10 See color code chart on page 11.
	8505†	100 1000	30.5 304.8	.2 1.8	26 (7x34) B-26	.010	.25	.039	.99	1-10, 14-22 See color code chart on page 11.
	8504†	100 1000	30.5 304.8	.3 2.4	24 (7x32) B-24	.010	.25	.044	1.12	1-10, 14-22 See color code chart on page 11.
	8503†	100 1000	30.5 304.8	.4 3.3	22 (7x30) B-22	.010	.25	.050	1.27	1-10, 14-22 See color code chart on page 11.
	8502†	100 1000	30.5 304.8	.5 4.7	20 (7x28) B-20	.010	.25	.058	1.47	1-10, 14-22 See color code chart on page 11.
	8501	100 1000	30.5 304.8	.7 7.1	18 (7x26) B-18	.010	.25	.068	1.73	1-10, 14-22 See color code chart on page 11.
	8500†	100 1000	30.5 304.8	1.0 9.7	16 (19x29) B-16	.010	.25	.077	1.96	1-10, 14-22 See color code chart on page 11.

*Certification Available Upon Special Request.
For High Temperature Mil-W-16878E Hook-up wire see pages 141-143.
†Passes the VW-1 Vertical Wire Flame Test.

Multi-Conductor Cables

The cables in this section are organized first by shielding (from simple to complex) and secondly, in order of descending gage size (i.e. 30 gage, 28 gage, 24 gage, . . .). Cables are further grouped by insulation types—within each particular shielding/gage category.

Belden multi-conductor cables are manufactured in a wide variety of gage sizes, dimensions, insulation materials, shielding configurations and jacketing materials to meet the technical requirements of many different types of systems.

At Belden, user safety is always a primary design consideration. In fact, Belden manufactures one of the broadest lines of U.L. listed and CSA approved cables available from any single source.

Applications for multi-conductor cables include communications, instrumentation, sound, control, audio and data transmission. Each of these cables is designed to protect signal integrity under critical conditions by reducing hum, noise and cross-talk.

As an aid to proper cable selection, both the suggested working voltages and the maximum temperature ratings are indicated for each product in this section. The majority of these products have passed the VW-1 Vertical Flame Test.

Custom Design Center

If you have a new or unusual application or you cannot find cable in this section which meets your technical requirements, contact Belden's Product Engineering Group. Phone 317/983-5200.

Packaging

Belden's unique UNREEL® cable dispenser is available for many of the cables listed in this section. The letter "U" before the specified put-up length denotes UNREEL packaging.

Control and Audio Cables

22 Gage
Solid Conductors
Polyethylene Insulated

Product Description
Bare copper, polyethylene insulated, conductors cabled, rose gray PVC jacket.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft	m		Inch	mm	Inch	mm	Inch	mm
	8794 ЯU 2093	3	U-500 U-1000 1000	U-152.4 U-304.8 304.8	9.6 18.2 18.9	.016	.41	.022	.56	.168	4.27
						Color code: Green, Red, Yellow.					
300V 60C	**9794** ЯU 2094	4	U-500 U-1000 1000	U-152.4 U-304.8 304.8	10.7 20.4 21.2	.016	.41	.025	.64	.190	4.83
						Color code: Green, Red, Yellow, Black.					

Control, Audio and Computer Cables For EIA RS-232 Applications

22 Gage
Stranded Conductors (7x30)
PVC Insulated

Product Description
Tinned copper, PVC insulated, conductors cabled. Chrome PVC jacket.

 ЯU 2576 150V 80C	**8443†**	3	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	2.1 9.0 8.9 17.5 18.1	.010	.25	.032	.81	.164	4.17
						Color code: Black, Red, Green.					
	8444†	4	100 250 U-500 500 U-1000 1000	30.5 76.2 U-152.4 152.4 U-304.8 304.8	2.4 5.8 11.2 10.9 21.5 22.2	.010	.25	.032	.81	.182	4.62
						Color code chart No. 1, Technical Information Section. **For Plenum version, see 88444 on page 122.**					
	8445†	5	100 250 U-500 500 U-1000 1000	30.5 76.2 U-152.4 152.4 U-304.8 304.8	2.8 6.7 12.6 13.7 25.1 25.9	.010	.25	.032	.81	.194	4.93
						Color code chart No. 1, Technical Information Section.					

†Passes the VW-1 Vertical Wire Flame Test.

Control, Audio and Computer Cables For EIA RS-232 Applications

22 Gage (cont'd.)
Stranded Conductors (7x30)
PVC Insulated

Product Description
Tinned copper, PVC insulated, conductors cabled. Chrome PVC jacket.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		Inch	mm	Inch	mm	Inch	mm
 2576 150V 80C	**9430†**	7	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	16.6 17.3 32.2 33.1	.010	.25	.032	.81	.214	5.44
						Color code chart No. 1, Technical Information Section.					
	9421†	8	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	4.1 18.5 19.1 36.1 37.0	.010	.25	.032	.81	.229	5.82
						Color code chart No. 1, Technical Information Section.					
	9423†	9	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	4.5 21.0 21.7 41.0 42.0	.010	.25	.032	.81	.244	6.20
						Color code chart No. 1, Technical Information Section.					
	8456†	10	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	5.1 24.1 24.9 47.2 50.2	.010	.25	.032	.81	.264	6.71
						Color code chart No. 1, Technical Information Section.					
	8457†	12	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	5.6 25.6 26.3 50.1 53.1	.010	.25	.032	.81	.264	6.71
						Color code chart No. 1, Technical Information Section.					
	8458†	15	100 500 1000	30.5 152.4 304.8	7.8 36.0 76.8	.010	.25	.040	1.02	.330	8.38
						Color code chart No. 2R, Technical Information Section.					
	9431†	20	100 500 1000	30.5 152.4 304.8	9.0 43.7 90.9	.010	.25	.040	1.02	.345	8.76
						Color code chart No. 2R, Technical Information Section.					
	8459†	25	100 500 1000	30.5 152.4 304.8	10.9 53.1 106.2	.010	.25	.040	1.02	.370	9.40
						Color code chart No. 2R, Technical Information Section.					

†Passes the VW-1 Vertical Wire Flame Test.

Control, Audio and Computer Cables

22 Gage (cont'd.)
Stranded Conductors (7x30)
PVC Insulated

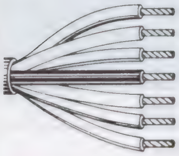
Product Description
Tinned copper, PVC insulated, conductors cabled. Chrome PVC jacket. Color code chart No. 2R, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		Inch	mm	Inch	mm	Inch	mm
	9432†	30	100 500 1000	30.5 152.4 304.8	12.3 62.9 119.7	.010	.25	.040	1.02	.400	10.16
	9433†	40	100 500 1000	30.5 152.4 304.8	16.7 82.8 162.8	.010	.25	.040	1.02	.455	11.56
2576 150V 80C	**9434†**	50	500 1000	152.4 304.8	101.2 201.5	.010	.25	.045	1.14	.500	12.70

Control and Audio Cables

20 Gage
Stranded Conductors (10x30)
PVC insulated

Product Description
Tinned copper, PVC insulated, conductors cabled. Chrome PVC jacket. Color code chart No. 1, Technical Information Section.

	**9444†**	4	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	3.3 15.5 16.2 30.1 31.0	.013	.33	.032	.81	.217	5.51
						Color code chart No. 1, Technical Information Section.					
2464 300V 80C	**9445†**	5	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	4.1 18.5 19.2 36.2 36.8	.013	.33	.032	.81	.239	6.07
						Color code chart No. 1, Technical Information Section.					
	9439†	7	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	5.2 23.7 24.5 46.4 49.4	.013	.33	.032	.81	.260	6.60
						Color code chart No. 1, Technical Information Section.					
	9455†	9	100 500 1000	30.5 152.4 304.8	6.8 32.6 68.5	.013	.33	.035	.89	.317	8.05
						Color code chart No. 1, Technical Information Section.					
	9457†	12	100 500 1000	30.5 152.4 304.8	8.2 39.4 82.8	.013	.33	.035	.89	.338	8.58
						Color code chart No. 1, Technical Information Section.					
	9458†	15	100 500 1000	30.5 152.4 304.8	11.3 53.2 104.5	.013	.33	.040	1.02	.389	9.88
						Color code chart No. 2, Technical Information Section.					

†Passes the VW-1 Vertical Wire Flame Test.

Control and Audio Cables

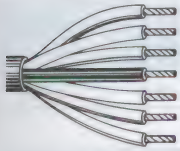
19 Gage
Solid Conductors
PVC Insulated

Product Description
Bare copper, PVC insulated, conductors cabled. Chrome PVC jacket. Suggested working voltage: 300.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		Inch	mm	Inch	mm	Inch	mm
	8487† 80C	3	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	13.0 12.8 25.0 25.8	.015	.38	.025	.64	.192	4.88
						Color code: Brown, Gray, Tan.					

18 Gage
Stranded Conductors (16x30)
PVC Insulated

Product Description
Tinned copper, PVC insulated, conductors cabled. Chrome PVC jacket.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		Inch	mm	Inch	mm	Inch	mm
	**8489†**	4	100 250 U-500 500 U-1000 1000	30.5 76.2 U-152.4 152.4 U-304.8 304.8	5.1 11.8 23.1 23.9 45.2 48.3	.018	.46	.032	.81	.264	6.71
						Color code chart No. 1, Technical Information Section. **For Plenum version, see 88489 on page 122.**					
2598 300V 60C	**8465†**	5	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	6.1 28.7 29.2 56.3 60.3	.018	.46	.037	.94	.286	7.26
						Color code chart No. 1, Technical Information Section.					
	8467†	7	100 250 500 1000	30.5 76.2 152.4 304.8	8.0 20.0 38.6 81.0	.018	.46	.037	.94	.324	8.23
						Color code chart No. 1, Technical Information Section.					
	8469†	9	100 250 500 1000	30.5 76.2 152.4 304.8	10.1 25.7 51.8 103.7	.018	.46	.037	.94	.379	9.63
						Color code chart No. 1, Technical Information Section.					
	8466†	12	100 250 500 1000	30.5 76.2 152.4 304.8	12.6 31.3 64.1 126.1	.018	.46	.040	1.02	.412	10.46
						Color code chart No. 2R, Technical Information Section.					
	8468†	15	100 500 1000	30.5 152.4 304.8	17.6 87.9 172.8	.018	.46	.045	1.14	.505	12.83
						Color code chart No. 2R, Technical Information Section.					
	8619†	19	100 500 1000	30.5 152.4 304.8	20.0 99.3 195.0	.018	.46	.045	1.14	.505	12.83
						Color code chart No. 2R, Technical Information Section.					
	9626†	25	100 500 1000	30.5 152.4 304.8	27.1 134.9 270.8	.018	.46	.060	1.52	.620	15.75
						Color code chart No. 2R, Technical Information Section.					

†Passes the VW-1 Vertical Wire Flame Test.

Multi-Conductor
Unshielded

BELDEN
COOPER INDUSTRIES

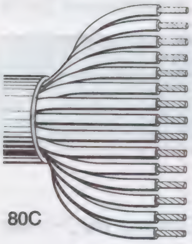
Control and Audio Cables

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		Inch	mm	Inch	mm	Inch	mm

16 Gage
Stranded Conductors (19x29)

PVC Insulated

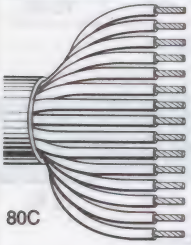
Product Description
Tinned copper, PVC insulated, conductors cabled. Chrome PVC jacket. Suggested working voltage: 600.

Description	Trade & U.L. Style Number	No. of Cond.	ft.	m	Std. Unit Lbs. ea.	Insulation Inch	Insulation mm	Jacket Inch	Jacket mm	O.D. Inch	O.D. mm
 80C	**8620†**	4	100 500 1000	30.5 152.4 304.8	8.7 42.2 87.9	.031	.79	.045	1.14	.375	9.53
						Color code chart No. 2, Technical Information Section.					
	9620†	5	100 500 1000	30.5 152.4 304.8	10.5 53.9 103.0	.031	.79	.045	1.14	.405	10.29
						Color code chart No. 2, Technical Information Section.					
	8621†	7	100 500 1000	30.5 152.4 304.8	14.1 69.9 136.8	.031	.79	.045	1.14	.455	11.56
						Color code chart No. 2R, Technical Information Section.					
	9721†	8	100 500 1000	30.5 152.4 304.8	15.9 78.8 154.8	.031	.79	.045	1.14	.495	12.57
						Color code chart No. 2R, Technical Information Section.					
	9621†	9	100 500 1000	30.5 152.4 304.8	17.7 87.7 171.3	.031	.79	.045	1.14	.520	13.21
						Color code chart No. 2R, Technical Information Section.					
	8622†	12	100 500 1000	30.5 152.4 304.8	23.7 117.6 236.2	.031	.79	.060	1.52	.610	15.49
						Color code chart No. 2R, Technical Information Section.					
	8623†	15	100 500 1000	30.5 152.4 304.8	28.9 146.9 286.8	.031	.79	.060	1.52	.670	17.02
						Color code chart No. 2R, Technical Information Section.					
	8624†	19	100 500 1000	30.5 152.4 304.8	36.3 172.5 349.1	.031	.79	.065	1.65	.700	17.78
						Color code chart No. 2R, Technical Information Section.					
	9622†	25	100 500 1000	30.5 152.4 304.8	46.9 226.4 460.7	.031	.79	.065	1.65	.850	21.59
						Color code chart No. 2R, Technical Information Section.					

14 Gage
Stranded Conductors (19x27)

PVC Insulated

Product Description
Tinned copper, PVC insulated, conductors cabled. Chrome PVC jacket. Suggested working voltage: 600. Color code chart No. 2, Technical Information Section.

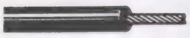
Description	Trade & U.L. Style Number	No. of Cond.	ft.	m	Std. Unit Lbs. ea.	Insulation Inch	Insulation mm	Jacket Inch	Jacket mm	O.D. Inch	O.D. mm
 80C	**8627†**	4	100 500 1000	30.5 152.4 304.8	14.2 71.6 140.3	.047	1.19	.045	1.14	.495	12.57
	9623†	5	100 500 1000	30.5 152.4 304.8	19.1 94.1 189.2	.047	1.19	.060	1.52	.545	13.84
	8628†	7	100 500 1000	30.5 152.4 304.8	23.9 118.7 238.3	.047	1.19	.060	1.52	.615	15.62
	8629†	12	100 500 1000	30.5 152.4 304.8	40.9 201.8 397.2	.047	1.19	.065	1.65	.800	20.32

Roadway Loop

14 Gage
Stranded Conductor (104x34)

High Density Polyethylene Insulated

Product Description
Tinned copper conductor, black high density polyethylene insulation. Suggested working voltage: 600.

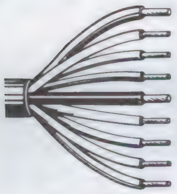
Description	Trade & U.L. Style Number	No. of Cond.	ft.	m	Std. Unit Lbs. ea.	Insulation Inch	Insulation mm	Jacket Inch	Jacket mm	O.D. Inch	O.D. mm
	**New 9438** 105C **Direct Burial**	1	1000	304.8	19.2	.032	.81	—	—	.139	3.53

†Passes the VW-1 Vertical Wire Flame Test.

Control and Audio Cables

Combination Gages
Stranded Conductors
PVC Insulated

Product Description
Tinned copper, PVC insulated, conductors cabled. Chrome PVC jacket.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding
			ft.	m			Inch	mm	Inch	mm	Inch	mm	
	**8446†**	6	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	4.5 20.6 21.0 40.4 41.0	4-22 (7x30)	.010	.25	.032	.81	.236	5.99	Red Green Brown Blue
						2-18 (16x30)	.018	.46					Black White
ЯU 2576 150V 80C	**8447†**	7	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	4.8 23.0 23.4 44.5 45.3	5-22 (7x30)	.010	.25	.032	.81	.254	6.45	Red Green Brown Blue Orange
						2-18 (16x30)	.018	.46					Black White
	8449†	9	100 250 U-500 500 U-1000 1000	30.5 76.2 U-152.4 152.4 U-304.8 304.8	5.6 14.0 25.7 26.5 50.4 53.4	7-22 (7x30)	.010	.25	.032	.81	.269	6.83	Red Green Brown Blue Orange Yellow Purple
						2-18 (16x30)	.018	.46					Black White

Combination Gages
Stranded Conductors
PVC Insulated

Product Description
Tinned copper, PVC insulated, conductors cabled. Chrome PVC jacket.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding
			ft.	m			Inch	mm	Inch	mm	Inch	mm	
	8784† 300V 80C	10	U-500 500	U-152.4 152.4	33.5 34.4	2-16 (26x30)	.016	.41	.032	.81	.304	7.72	Black White Gray Red Green Orange Yellow Blue Purple Brown
						1-20 (10x30)	.013	.33					
						7-22 (7x30)	.013	.33					

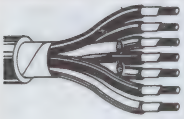
†Passes the VW-1 Vertical Wire Flame Test.

Multi-Conductor
Rubber and Neoprene SO Cables

Power and Control Cables

16 Gage
Stranded Conductors (65x34)
Rubber Insulated

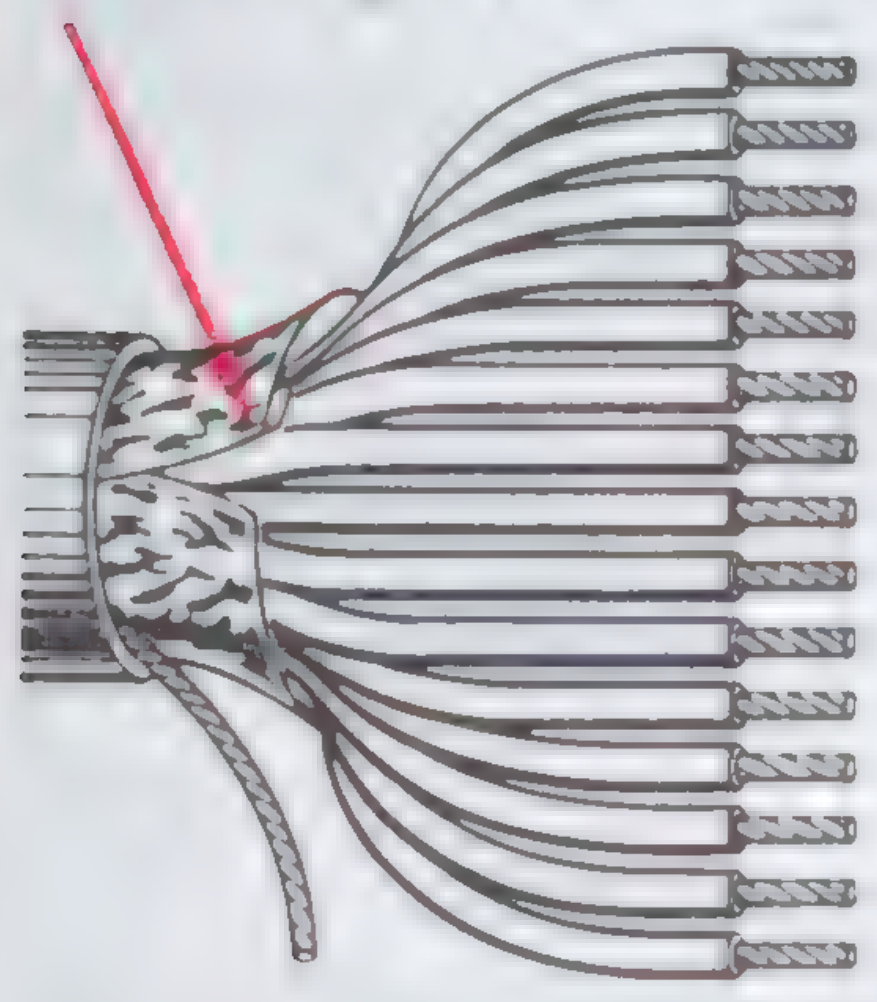
Product Description
Bare copper, rubber insulated, conductors cabled with fillers, black neoprene jacket. Color code chart No. 2, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		inch	mm	inch	mm	inch	mm
	**9420**	5	100 500 1000	30.5 152.4 304.8	17.3 85.6 168.1	.030	.76	.080	2.03	.520	13.21
	9422	7	100 500 1000	30.5 152.4 304.8	22.5 115.4 223.8	.030	.76	.080	2.03	.600	15.24
UL LISTED SO 600V 60C	**9424**	9	100 500 1000	30.5 152.4 304.8	29.9 157.1 308.1	.030	.76	.095	2.41	.720	18.29
	9425	12	100 500 1000	30.5 152.4 304.8	34.7 170.4 342.4	.030	.76	.095	2.41	.730	18.54
	9427	16	100 500 1000	30.5 152.4 304.8	44.7 220.4 448.8	.030	.76	.095	2.41	.825	20.96
	9429	20	100 500	30.5 152.4	50.5 246.6	.030	.76	.095	2.41	.880	22.35

Sound, Broadcast, Audio, Instrumentation and Computer Cables For EIA RS-232 Applications

24 Gage
Stranded Conductors (7x32)
S-R PVC Insulated

Product Description
Tinned copper, S-R PVC insulated, conductors cabled, Beldfoil aluminum-polyester shield with 24 AWG stranded tinned copper drain wire, chrome PVC jacket. Color code chart No. 1, Technical Information Section.



Beldfoil
100% Shield Coverage
UL 2464
300V 80C
S-R PVC

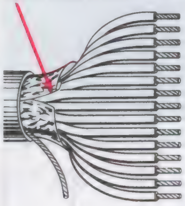
Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance‡			
			ft.	m			Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
	9533†	3	100 U-500 500 U-1000 1000	30.5 152.4 152.4 304.8 304.8	2.1 9.5 9.1 17.8 18.5	(7x32)	.010	.25	.035	.89	.168	4.27	33	108	65	213
	9534†	4	100 U-500 500 U-1000 1000	30.5 152.4 152.4 304.8 304.8	2.4 10.9 11.8 21.3 22.1	(7x32)	.010	.25	.035	.89	.190	4.83	33	108	65	213
	9535†	5	100 U-500 500 U-1000 1000	30.5 152.4 152.4 304.8 304.8	2.7 12.6 13.0 24.1 24.9	(7x32)	.010	.25	.035	.89	.195	4.95	33	108	65	213
	9536†	6	100 U-500 500 U-1000 1000	30.5 152.4 152.4 304.8 304.8	3.0 14.4 15.0 27.8 28.7	(7x32)	.010	.25	.035	.89	.215	5.46	33	108	65	213
	9537†	7	100 U-500 500 U-1000 1000	30.5 152.4 152.4 304.8 304.8	3.2 15.3 15.7 30.0 30.5	(7x32)	.010	.25	.035	.89	.215	5.46	33	108	65	213
	9538†	8	100 U-500 500 U-1000 1000	30.5 152.4 152.4 304.8 304.8	3.8 17.3 17.9 33.5 34.4	(7x32)	.010	.25	.035	.89	.230	5.84	33	108	65	213
	9539†	9	100 U-500 500 U-1000 1000	30.5 152.4 152.4 304.8 304.8	4.2 19.2 19.7 37.5 38.6	(7x32)	.010	.25	.035	.89	.250	6.35	30	98	55	180

†Passes the VW-1 Vertical Wire Flame Test.
‡At 1 Khz.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.

Sound, Broadcast, Audio, Instrumentation and Computer Cables For EIA RS-232 Applications

24 Gage
Stranded Conductors (7x32)
S-R PVC Insulated

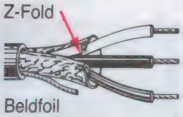
Product Description
Tinned copper, S-R PVC insulated, conductors cabled, Beldfoil aluminum-polyester shield with 24 AWG stranded tinned copper drain wire, chrome PVC jacket.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance‡			
			ft.	m			Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
Shorting Fold  Beldfoil 100% Shield Coverage 2464 300V 80C S-R PVC	**9540†**	10	100 U-500 500 U-1000 1000	30.5 152.4 152.4 304.8 304.8	4.5 20.2 20.9 39.3 40.3	24 (7x32)	.010	.25	.035	.89	.250	6.35	30	98	55	180
							Color code chart No. 1, Technical Information Section.									
	9541†	15	100 U-500 500 U-1000 1000	30.5 152.4 152.4 304.8 304.8	5.9 29.3 27.9 57.7 61.0	24 (7x32)	.010	.25	.035	.89	.290	7.37	30	98	55	180
							Color code chart No. 2R, Technical Information Section.									
	9542†	20	100 U-500 500 1000	30.5 152.4 152.4 304.8	7.2 33.9 34.8 70.8	24 (7x32)	.010	.25	.035	.89	.320	8.13	30	98	55	180
							Color code chart No. 2R, Technical Information Section.									
	9543†	25	100 500 1000	30.5 152.4 304.8	8.9 45.5 90.5	24 (7x32)	.010	.25	.042	1.07	.360	9.14	30	98	55	180
							Color code chart No. 2R, Technical Information Section.									
	9544†	30	100 500 1000	30.5 152.4 304.8	10.2 51.0 101.6	24 (7x32)	.010	.25	.040	1.02	.380	9.65	30	98	55	180
							Color code chart No. 2R, Technical Information Section.									
	9545†	40	100 500 1000	30.5 152.4 304.8	13.6 64.8 132.7	24 (7x32)	.010	.25	.040	1.02	.430	10.92	30	98	55	180
							Color code chart No. 2R, Technical Information Section.									
	9546†	50	100 500 1000	30.5 152.4 304.8	16.5 81.5 165.0	24 (7x32)	.010	.25	.045	1.14	.490	12.45	30	98	55	180
							Color code chart No. 2R, Technical Information Section.									

†Passes the VW-1 Vertical Wire Flame Test.
‡At 1 Khz.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.

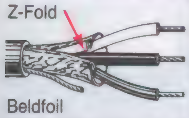
Sound, Broadcast, Audio and Instrumentation Cables

22 Gage Stranded Conductors (7x30)
Polypropylene Insulated

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m
	**9770†** 80C	3	250 U-500 500 U-1000 1000	76.2 U-152.4 152.4 U-304.8 304.8	4.5 8.7 8.9 16.5 17.3	(7x30)	.008	.20	.020	.51	.145	3.68	Black Red White	32	105	60	197

Product Description: Tinned copper, polypropylene insulated, conductors cabled, Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, paper wrap, brown PVC jacket. 100% shield coverage. Suggested working voltage: 200.

22 Gage Stranded Conductors (7x30)
Polyethylene Insulated

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m
	**8771** UL 2093 300V 60C	3	250 U-500 500 U-1000 1000	76.2 U-152.4 152.4 U-304.8 304.8	5.5 10.8 10.5 20.6 21.2	(7x30)	.016	.41	.025	.64	.183	4.65	Black Red Clear	23	75	41	134

Product Description: Tinned copper, polyethylene insulated, conductors cabled, Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, chrome PVC jacket. 100% shield coverage.

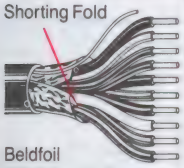
22 Gage Stranded Conductors (19x34)
Polyethylene Insulated

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m
	8729 UL 2094 300V 60C	4	U-500 500 U-1000 1000	U-152.8 152.8 U-304.8 304.8	20.8 21.5 40.6 41.6	(19x34)	.016	.41	.051	1.30	.262	6.66	Red Black Green Clear	22	72	42	138

Product Description: Tinned copper, polyethylene insulated, conductors cabled, Beldfoil aluminum-polyester shield, 3—23 AWG solid tinned copper-coated steel and 1—25 AWG stranded tinned copper coated steel drain wires, white PVC jacket. Belden U.S. Patent 3,673,315 and Belden Canadian Patent 875,187. 100% shield coverage.

20 Gage Solid Conductors
Polypropylene Insulated

Product Description
Tinned copper, polypropylene insulated, conductors cabled, Beldfoil aluminum-polyester shield overall, 22 AWG solid tinned copper drain wire, black high density polyethylene jacket. Suggested working voltage: 350.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m
	**9803 Direct Burial**	3	500 1000	152.4 304.8	12.9 24.4	Solid	.013	.33	.035	.89	.205	5.21	White Red Black	23	75	42	137
	9890 Direct Burial	10	500 1000	152.4 304.8	31.4 64.0	Solid	.013	.33	.040	1.02	.310	7.87	Chart 1, Technical Section	23	75	42	137
	9894 Direct Burial	15	500 1000	152.4 304.8	48.1 95.7	Solid	.013	.33	.045	1.14	.390	9.91	Chart 2, Technical Section	23	75	42	137

20 Gage Stranded Conductors (7x28)
Polyethylene Insulated

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m
	8772 UL 2093 300V 60C	3	U-500 Chrome	U-152.4	14.6	(7x28)	.016	.41	.028	.71	.208	5.28	Black Red Clear	27	89	51	167
			500 Chrome Lt. Beige	152.4	15.3												
			U-1000 Chrome	U-304.8	28.5												
			1000 Chrome Lt. Beige	304.8	29.4												

Product Description: Tinned copper, polyethylene insulated, conductors cabled, Beldfoil aluminum-polyester shield, 20 AWG stranded tinned copper drain wire, chrome PVC jacket. 100% shield coverage.

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†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.

Multi-Conductor
Overall Beldfoil® Shield

Sound, Broadcast, Audio and Instrumentation Cables

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			inch	mm	inch	mm	inch	mm		* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m

18 Gage Stranded Conductors (16x30)
Polyethylene Insulated

 Beldfoil 100% Shield Coverage	**8770** UL 2093 300V 60C	3	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	18.8 19.5 36.6 37.4	(16x30)	.018	.46	.028	.71	.236	5.99	Black Red Clear	24	79	48	157
						Product Description: Tinned copper, polyethylene insulated, conductors cabled, Beldfoil aluminum-polyester shield, 20 AWG stranded tinned copper drain wire, chrome PVC jacket. 100% shield coverage.											

18 Gage Stranded Conductors (19x30)
S-R PVC Insulated

 Beldfoil 100% Shield Coverage	**9418†** UL 2464 300V 80C S-R PVC	4	100 U-500 500 U-1000 1000	30.4 U-152.4 152.4 U-304.8 304.8	5.2 23.8 24.2 46.5 47.4	(19x30)	.010	.25	.035	.89	.244	6.22	Black Red White Green	70	230	120	394
						Product Description: Tinned copper, S-R PVC insulated, conductors cabled, Beldfoil aluminum-polyester shield, 20 AWG stranded tinned copper drain wire, chrome PVC jackets. 100% shield coverage. **For Plenum version, see 89418 on page 122.**											

16 Gage Stranded Conductors (19x29)
Polyethylene Insulated

 Beldfoil 100% Shield Coverage	**8618** UL 2107 600V 60C	3	U-500 500 1000	U-152.4 152.4 304.8	30.0 30.9 65.6	(19x29)	.031	.79	.031	.79	.318	8.08	Black Red Clear	26	85	50	164
						Product Description: Tinned copper, polyethylene insulated, conductors cabled, Beldfoil aluminum-polyester shield, 18 AWG stranded tinned copper drain wire, chrome PVC jacket. 100% shield coverage.											

Multi-Conductor
Overall Braid Shield

Communication and Instrumentation Cables

30 Gage Stranded Conductors (7x38)
Polypropylene Insulated

 Braid Shield 95% Shield Coverage	**8643** 105C	3	100 250	30.5 76.2	.8 2.2	(7x38)	.006	.15	.014	.36	.096	2.44	Black Red White	25	82	43	141
						Product Description: Tinned copper, polypropylene insulated, conductors cabled around textile strength member, tinned copper braid shield, paper separator, chrome PVC jacket. Suggested working voltage: 200.											

22 Gage Stranded Conductors (7x30)
PVC Insulated

 Braid Shield 70% Shield Coverage	**8735†** UL 2095 300V 80C	3	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	3.0 13.5 14.2 26.2 27.0	(7x30)	.015	.38	.025	.64	.199	5.05	Black Red White	34	111	60	197
						Product Description: Tinned copper, PVC insulated, conductors cabled, tinned copper braid shield, chrome PVC jacket.											

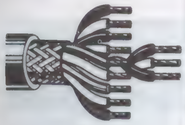
†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.

Control Cables

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m

20 Gage
Stranded Conductors (7x28)
PVC Insulated

Product Description
Tinned copper conductors, PVC insulated, tinned copper braid shield, chrome PVC jacket. Color code chart No. 2, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Cond.	ft.	m	Std. Unit Lbs. ea.	(Stranding)	Insulation Inch	Insulation mm	Jacket Inch	Jacket mm	O.D. Inch	O.D. mm	Color Coding	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Braid Shield 85% Shield Coverage	**9260†** ЯU 2464 300V 80C	6	50 100 500 1000	15.2 30.5 152.4 304.8	4.0 7.2 34.0 69.4	(7x28)	.016	.41	.032	.81	.305	7.75	—	35	115	56	184
	9261† ЯU 2464 300V 80C	12	50 100 500 1000	15.2 30.5 152.4 304.8	6.8 12.9 65.5 129.1	(7x28)	.016	.41	.040	1.02	.410	10.41	—	35	115	56	184

Combination: Braid Shielded Conductor/Unshielded Conductors

22 Gage
Stranded Conductors (7x30)
PVC Insulated

Description	Trade & U.L. Style Number	No. of Cond.	ft.	m	Std. Unit Lbs. ea.	(Stranding)	Insulation Inch	Insulation mm	Jacket Inch	Jacket mm	O.D. Inch	O.D. mm	Color Coding	* pF/ft.	* pF/m	** pF/ft.	** pF/m
Braid Shield 82% Shield Coverage	**8734†** ЯU 2785 300V 60C	3 1 shielded 2 unshielded	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	2.7 12.0 12.7 23.0 24.0	(7x30)	.015	.38	.025	.64	.194	4.93	White Black Red	—	—	79	259

Product Description: Tinned copper, PVC insulated, tinned copper braid shield over 1 conductor, 3 conductors cabled, chrome PVC jacket.

Overall Spiral Shield

18 Gage
Stranded Conductors (7x26)
PVC Insulated

Description	Trade & U.L. Style Number	No. of Cond.	ft.	m	Std. Unit Lbs. ea.	(Stranding)	Insulation Inch	Insulation mm	Jacket Inch	Jacket mm	O.D. Inch	O.D. mm	Color Coding	* pF/ft.	* pF/m	** pF/ft.	** pF/m
Spiral Shield 76% Shield Coverage	**8791†** 80C	3	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304-8	5.1 23.6 24.4 46.2 47.2	(7x26)	.020	.51	.028	.71	.260	6.60	Black Red White	47	154	84	275

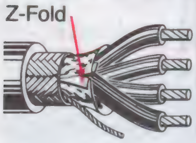
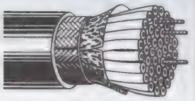
Product Description: Tinned copper, PVC insulated, conductors cabled, tinned copper spiral wrapped shield, chrome PVC jacket. Suggested working voltage: 450.

†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductor connected to shield.

Computer Cables For EIA RS-232 and Cad/Cam Applications

28 Gage
Stranded Conductors (7x36)
S-R PVC Insulated

Product Description
Tinned copper S-R PVC insulated, multi-conductor cable with overall Beldfoil aluminum-polyester plus 65% tinned copper braid shield, chrome PVC jacket.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nominal Capacitance‡			
			ft.	m		Cond.	Shield	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil® 100% Shield Coverage ЯU 2464 300V 80C S-R PVC	**New 9628**	3	100 500 1000	30.5 152.4 304.8	1.8 7.9 16.2	28 (7x36) 64.9Ω/M' 212.9Ω/km	14.2Ω/M' 46.6Ω/km	.165	4.19	28.0	91.9	51.0	167.4
								Color code chart No. 1, Technical Information Section.					
	New 9629	4	100 500 1000	30.5 152.4 304.8	2.2 9.7 19.5	28 (7x36) 64.9Ω/M' 212.9Ω/km	9.4Ω/M' 30.9Ω/km	.178	4.52	28.0	91.9	51.0	167.4
								Color code chart No. 1, Technical Information Section.					
	New 9630	5	100 500 1000	30.5 152.4 304.8	2.4 10.8 21.8	28 (7x36) 64.9Ω/M' 212.9Ω/km	9.4Ω/M' 30.9Ω/km	.188	4.78	28.0	91.9	51.0	167.4
								Color code chart No. 1, Technical Information Section.					
	New 9631	6	100 500 1000	30.5 152.4 304.8	2.7 11.9 24.1	28 (7x36) 64.9Ω/M' 212.9Ω/km	10.2Ω/M' 33.5Ω/km	.198	5.03	26.0	85.4	47.0	154.3
								Color code chart No. 1, Technical Information Section.					
	New 9632	7	100 500 1000	30.5 152.4 304.8	2.7 12.2 24.7	28 (7x36) 64.9Ω/M' 212.9Ω/km	10.2Ω/M' 33.5Ω/km	.198	5.03	26.0	85.4	47.0	154.3
								Color code chart No. 1, Technical Information Section.					
	New 9633	8	100 500 1000	30.5 152.4 304.8	3.1 14.2 26.9	28 (7x36) 64.9Ω/M' 212.9Ω/km	10.4Ω/M' 33.1Ω/km	.210	5.33	26.0	85.4	47.0	154.3
								Color code chart No. 1, Technical Information Section.					
	New 9634	9	100 500 1000	30.5 152.4 304.8	3.4 15.9 29.6	28 (7x36) 64.9Ω/M' 212.9Ω/km	6.3Ω/M' 20.7Ω/km	.220	5.59	26.0	85.4	47.0	154.3
								Color code chart No. 1, Technical Information Section.					
	New 9635	10	100 500 1000	30.5 152.4 304.8	3.6 16.8 32.2	28 (7x36) 64.9Ω/M' 212.9Ω/km	7.0Ω/M' 23.0Ω/km	.235	5.97	26.0	85.4	47.0	154.3
								Color code chart No. 1, Technical Information Section.					
	New 9636	15	100 500 1000	30.5 152.4 304.8	4.5 21.2 42.9	28 (7x36) 64.9Ω/M' 212.9Ω/km	6.5Ω/M' 21.3Ω/km	.260	6.60	26.0	85.4	47.0	154.3
								Color code chart No. 2R, Technical Information Section.					
	New 9637	25	100 500 1000	30.5 152.4 304.8	6.1 29.0 59.2	28 (7x36) 64.9Ω/M' 212.9Ω/km	4.5Ω/M' 14.8Ω/km	.305	7.75	26.0	85.4	47.0	154.3
								Color code chart No. 2R, Technical Information Section.					
	New 9638	37	100 500 1000	30.5 152.4 304.8	7.8 39.4 78.4	28 (7x36) 64.9Ω/M' 212.9Ω/km	4.1Ω/M' 13.4Ω/km	.345	8.76	26.0	85.4	47.0	154.3
								Color code chart No. 2R, Technical Information Section.					
 Beldfoil® 100% Shield Coverage ЯU 2464 300V 80C S-R PVC	**New 9639**	50	100 500 1000	30.5 152.4 304.8	11.0 51.7 101.3	28 (7x36) 64.9Ω/M' 212.9Ω/km	3.2Ω/M' 10.5Ω/km	.400	10.16	26.0	85.4	47.0	154.3
								Color code chart No. 2R, Technical Information Section.					

‡At 1 Khz.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.

Multi-Conductor
Overall Foil/Braid Shield

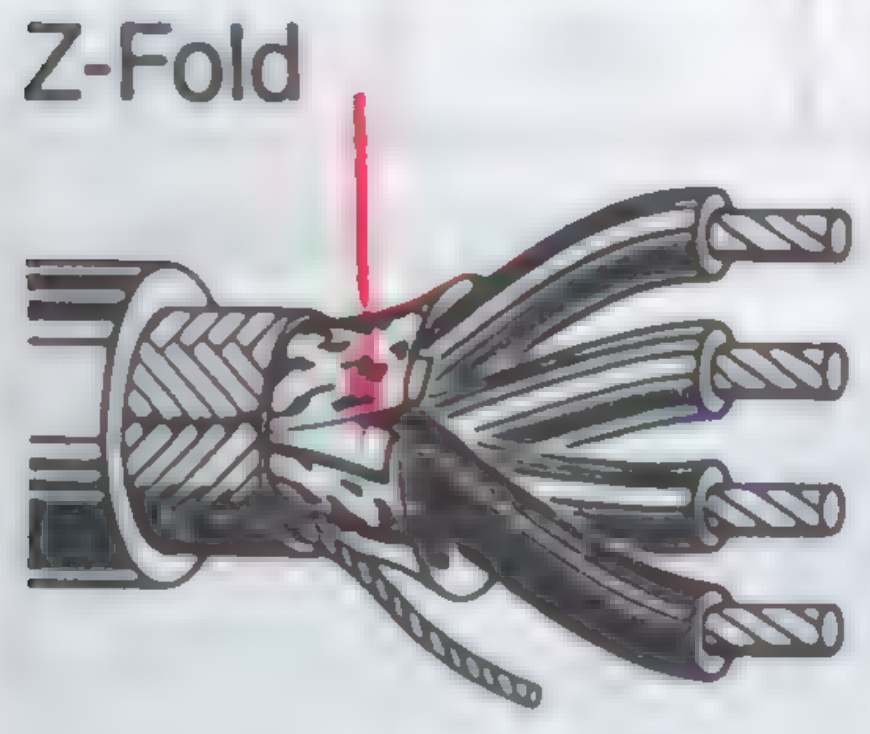
Datalene® insulation features are low dielectric constant, and a dissipation factor for high-speed, low-distortion data handling. Physical properties include good crush resistance and light weight.

BELDEN
COOPER INDUSTRIES

Computer Cables
Low Capacitance Cables For EIA RS-232 and EIA RS-423 Applications

28 Gage
Stranded Conductors (7x36)
Datalene Insulated

Product Description
Tinned copper, Datalene insulated multi-conductor cable with overall Beldfoil aluminum-polyester plus 65% tinned copper braid shield, 28 AWG stranded tinned copper drain wire, chrome PVC jacket.

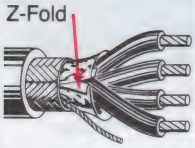
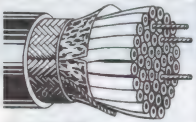
Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Vel. of Prop.	Nominal Capacitance			
			ft.	m		Cond.	Shield	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m
Z-Fold  Beldfoil® 100% Shield Coverage 2919 30V 80C	**New 9788**	3	100 500 1000	30.5 152.4 304.8	2.3 10.8 20.0	28 (7x36) 64.9Ω/M′ 212.9Ω/km	7.76Ω/M′ 25.4Ω/km	.195	4.95	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9789	4	100 500 1000	30.5 152.4 304.8	2.6 12.3 23.1	28 (7x36) 64.9Ω/M′ 212.9Ω/km	5.92Ω/M′ 19.4Ω/km	.210	4.95	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9790	5	100 500 1000	30.5 152.4 304.8	3.0 13.8 26.1	28 (7x36) 64.9Ω/M′ 212.9Ω/km	5.91Ω/M′ 19.4Ω/km	.225	5.72	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9791	6	100 500 1000	30.5 152.4 304.8	3.2 14.7 27.9	28 (7x36) 64.9Ω/M′ 212.9Ω/km	6.15Ω/M′ 20.2Ω/km	.235	5.97	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9792	7	100 500 1000	30.5 152.4 304.8	3.3 14.9 28.4	28 (7x36) 64.9Ω/M′ 212.9Ω/km	6.15Ω/M′ 20.2Ω/km	.235	5.97	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9793	8	100 500 1000	30.5 152.4 304.8	3.6 16.5 31.5	28 (7x36) 64.9Ω/M′ 212.9Ω/km	4.81Ω/M′ 15.8Ω/km	.250	6.35	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9795	9	100 500 1000	30.5 152.4 304.8	3.8 17.7 35.9	28 (7x36) 64.9Ω/M′ 212.9Ω/km	4.87Ω/M′ 16.0Ω/km	.260	6.60	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9796	10	100 500 1000	30.5 152.4 304.8	4.1 19.0 38.5	28 (7x36) 64.9Ω/M′ 212.9Ω/km	5.23Ω/M′ 17.2Ω/km	.280	7.11	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9797	15	100 500 1000	30.5 152.4 304.8	4.9 23.0 47.2	28 (7x36) 64.9Ω/M′ 212.9Ω/km	4.23Ω/M′ 13.9Ω/km	.310	7.87	78%	12	39.4	22	72.2
								Color code chart No. 2, Technical Information Section.						
	New 9798	25	100 500 1000	30.5 152.4 304.8	6.9 34.5 68.6	28 (7x36) 64.9Ω/M′ 212.9Ω/km	3.95Ω/M′ 12.9Ω/km	.385	9.78	78%	12	39.4	22	72.2
								Color code chart No. 2, Technical Information Section.						
	New 9799	37	100 500 1000	30.5 152.4 304.8	8.3 42.7 83.4	28 (7x36) 64.9Ω/M′ 212.9Ω/km	3.51Ω/M′ 11.5Ω/km	.420	10.67	78%	12	39.4	22	72.2
								Color code chart No. 2, Technical Information Section.						

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.

Computer Cables For EIA RS-232 and Cad/Cam Applications

24 Gage
Stranded Conductors (7x32)
S-R PVC Insulated

Product Description
Tinned copper, S-R PVC insulated, multi-conductor cable with overall Beldfoil aluminum-polyester plus 65% tinned copper braid shield, chrome PVC jacket.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nominal Capacitance‡			
			ft.	m		Cond	Shield	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil® 100% Shield Coverage 2464 300V 80C S-R PVC	**New 9608†**	3	100	30.5	2.5	24 (7x32)	8.6Ω/M'	.190	4.83	35	115	65	180
			500	152.4	12.2	24.0Ω/M'	28.2Ω/km	Color code chart No. 1, Technical Information Section.					
			1000	304.8	22.9	78.7Ω/km							
	New 9609†	4	100	30.5	2.9	24 (7x32)	9.8Ω/M'	.200	5.08	35	115	65	180
			500	152.4	13.7	24.0Ω/M'	32.2Ω/km	Color code chart No. 1, Technical Information Section.					
			1000	304.8	25.9	78.7Ω/km							
	New 9610†	5	100	30.5	3.3	24 (7x32)	6.5Ω/M'	.215	5.46	35	115	65	180
			500	152.4	16.1	24.0Ω/M'	21.3Ω/km	Color code chart No. 1, Technical Information Section.					
			1000	304.8	30.2	78.7Ω/km							
	New 9611†	6	100	30.5	3.8	24 (7x32)	7.0Ω/M'	.225	5.72	30	98.4	55	180
			500	152.4	16.1	24.0Ω/M'	23.0Ω/km	Color code chart No. 1, Technical Information Section.					
			1000	304.8	30.2	78.7Ω/km							
	New 9612†	7	100	30.5	4.0	24 (7x32)	6.9Ω/M'	.225	5.72	30	98.4	55	180
			500	152.4	18.6	24.0Ω/M'	22.6Ω/km	Color code chart No. 1, Technical Information Section.					
			1000	304.8	35.8	78.7Ω/km							
	New 9613†	8	100	30.5	4.4	24 (7x32)	7.3Ω/M'	.250	6.35	30	98.4	55	180
			500	152.4	20.7	24.0Ω/M'	23.9Ω/km	Color code chart No. 1, Technical Information Section.					
			1000	304.8	40.3	78.7Ω/km							
	New 9614†	9	100	30.5	4.8	24 (7x32)	7.5Ω/M'	.253	6.42	30	98.4	55	180
			500	152.4	22.7	24.0Ω/M'	24.6Ω/km	Color code chart No. 1, Technical Information Section.					
			1000	304.8	43.9	78.7Ω/km							
	New 9615†	10	100	30.5	5.1	24 (7x32)	6.9Ω/M'	.270	6.86	30	98.4	55	180
			500	152.4	24.0	24.0Ω/M'	22.6Ω/km	Color code chart No. 1, Technical Information Section.					
			1000	304.8	48.3	78.7Ω/km							
	New 9616†	15	100	30.5	6.7	24 (7x32)	6.0Ω/M'	.300	7.62	30	98.4	55	180
			500	152.4	32.1	24.0Ω/M'	19.7Ω/km	Color code chart No. 2R, Technical Information Section.					
			1000	304.8	65.5	78.7Ω/km							
	New 9617†	25	100	30.5	9.9	24 (7x32)	5.1Ω/M'	.370	9.40	30	98.4	55	180
			500	152.4	49.7	24.0Ω/M'	16.7Ω/km	Color code chart No. 2R, Technical Information Section.					
			1000	304.8	99.0	78.7Ω/km							
 Beldfoil® 100% Shield Coverage 2464 300V 80C S-R PVC	**New 9618†**	37	100	30.5	13.1	24 (7x32)	4.4Ω/M'	.411	10.43	30	98.4	55	180
			500	152.4	65.6	24.0Ω/M'	14.4Ω/km	Color code chart No. 2R, Technical Information Section.					
			1000	304.8	131.1	78.7Ω/km							
	New 9619†	50	100	30.5	17.7	24 (7x32)	4.3Ω/M'	.485	12.32	30	98.4	55	180
			500	152.4	87.5	24.0Ω/M'	14.1Ω/km	Color code chart No. 2R, Technical Information Section.					
			1000	304.8	171.9	78.7Ω/km							

†Passes the VW-1 Vertical Wire Flame Test.
‡At 1 Khz.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.

Multi-Conductor
Overall Foil/Braid Shield

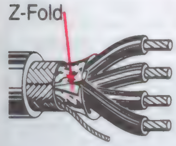
Datalene® insulation features are low dielectric constant and a dissipation factor for high-speed, low-distortion data handling. Physical properties include good crush resistance and light weight.

Computer Cables
Low Capacitance Cables For EIA RS-232, EIA RS-423 and Cad/Cam Applications

24 Gage
Stranded Conductors (7x32)
Datalene Insulated

Product Description
Tinned copper, Datalene insulated, multi-conductor cable with overall Beldfoil aluminum-polyester plus 65% tinned copper braid shield, 24 AWG stranded tinned copper drain wire, chrome PVC jacket.

Z-Fold



Beldfoil®
100% Shield
Coverage
UL 2919
30V 80C

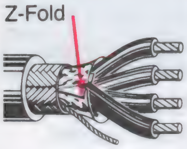
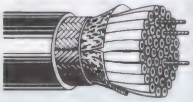
Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nominal Vel. of Prop.	Nominal Capacitance			
			ft.	m		Cond.	Shield	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m
	New 9925	3	100 500 1000	30.5 152.4 304.8	2.92 14.1 26.8	24 (7x32) 24.0Ω/M′ 78.7Ω/km	5.18Ω/M′ 17.0Ω/km	.215	5.46	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9927	4	100 500 1000	30.5 152.4 304.8	3.47 15.9 30.4	24 (7x32) 24.0Ω/M′ 78.7Ω/km	5.31Ω/M′ 17.4Ω/km	.230	5.84	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9929	5	100 500 1000	30.5 152.4 304.8	3.72 17.2 32.9	24 (7x32) 24.0Ω/M′ 78.7Ω/km	4.23Ω/M′ 13.9Ω/km	.246	6.25	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9931	6	100 500 1000	30.5 152.4 304.8	4.32 20.1 40.7	24 (7x32) 24.0Ω/M′ 78.7Ω/km	4.4Ω/M′ 14.4Ω/km	.265	6.73	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9932	7	100 500 1000	30.5 152.4 304.8	4.45 20.8 42.0	24 (7x32) 24.0Ω/M′ 78.7Ω/km	4.41Ω/M′ 14.5Ω/km	.265	6.73	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9933	8	100 500 1000	30.5 152.4 304.8	5.90 22.9 46.3	24 (7x32) 24.0Ω/M′ 78.7Ω/km	4.40Ω/M′ 14.4Ω/km	.280	7.11	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9934	9	100 500 1000	30.5 152.4 304.8	5.39 25.6 52.4	24 (7x32) 24.0Ω/M′ 78.7Ω/km	3.85Ω/M′ 12.6Ω/km	.300	7.62	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9935	10	100 500 1000	30.5 152.4 304.8	5.84 27.57 56.4	24 (7x32) 24.0Ω/M′ 78.7Ω/km	3.18Ω/M′ 10.4Ω/km	.320	8.13	78%	12	39.4	22	72.2
								Color code chart No. 1, Technical Information Section.						
	New 9936	15	100 500 1000	30.5 152.4 304.8	7.26 34.8 73.1	24 (7x32) 24.0Ω/M′ 78.7Ω/km	3.56Ω/M′ 11.7Ω/km	.360	9.14	78%	12	39.4	22	72.2
								Color code chart No. 2, Technical Information Section.						
	New 9937	25	100 500 1000	30.5 152.4 304.8	11.2 53.0 104.	24 (7x32) 24.0Ω/M′ 78.7Ω/km	2.77Ω/M′ 9.1Ω/km	.445	11.30	78%	12	39.4	22	72.2
								Color code chart No. 2, Technical Information Section.						
	New 9938	37	100 500 1000	30.5 152.4 304.8	14.5 71.4 139.8	24 (7x32) 24.0Ω/M′ 78.7Ω/km	2.37Ω/M′ 7.8Ω/km	.500	12.10	78%	12	39.4	22	72.2
								Color code chart No. 2, Technical Information Section.						

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.

Computer Cables
For EIA RS-232 and Cad/Cam Applications

22 Gage
Stranded Conductors (7x30)
S-R PVC Insulated

Product Description
Tinned copper, S-R PVC insulated, multi-conductor cable with overall Beldfoil aluminum-polyester plus 65% tinned copper braid shield, chrome PVC jacket.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Nominal D.C.R. Cond.	Nominal D.C.R. Shield	Nominal O.D. Inch	Nominal O.D. mm	Nominal Capacitance‡ * pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil® 100% Shield Coverage 2464 300V 80C S-R PVC	**New 9939†**	3	100 500 1000	30.5 152.4 304.8	3.03 14.6 27.8	22 (7x30) 15Ω/M' 49.2Ω/km	6.2Ω/M' 20.4Ω/km	.202	5.13	37	122	67	220
								Color code chart No. 1, Technical Information Section.					
	New 9940†	4	100 500 1000	30.5 152.4 304.8	3.44 16.7 32.0	22 (7x30) 15Ω/M' 49.2Ω/km	5.0Ω/M' 16.4Ω/km	.215	5.46	37	122	67	220
								Color code chart No. 1, Technical Information Section.					
	New 9941†	5	100 500 1000	30.5 152.4 304.8	4.13 19.2 37.0	22 (7x30) 15Ω/M' 49.2Ω/km	7.1Ω/M' 23.3Ω/km	.230	5.84	37	122	67	220
								Color code chart No. 1, Technical Information Section.					
	New 9942†	6	100 500 1000	30.5 152.4 304.8	4.61 21.7 41.9	22 (7x30) 15Ω/M' 49.2Ω/km	7.9Ω/M' 25.9Ω/km	.245	6.22	35	115	63	207
								Color code chart No. 1, Technical Information Section.					
	New 9943†	7	100 500 1000	30.5 152.4 304.8	4.87 22.9 44.3	22 (7x30) 15Ω/M' 49.2Ω/km	7.9Ω/M' 25.9Ω/km	.245	6.22	35	115	63	207
								Color code chart No. 1, Technical Information Section.					
	New 9944†	8	100 500 1000	30.5 152.4 304.8	5.41 25.5 49.6	22 (7x30) 15Ω/M' 49.2Ω/km	5.1Ω/M' 16.7Ω/km	.260	6.60	35	115	63	207
								Color code chart No. 1, Technical Information Section.					
	New 9945†	9	100 500 1000	30.5 152.4 304.8	5.93 28.2 56.8	22 (7x30) 15Ω/M' 49.2Ω/km	5.1Ω/M' 16.7Ω/km	.280	7.11	35	115	63	207
								Color code chart No. 1, Technical Information Section.					
	New 9946†	10	100 500 1000	30.5 152.4 304.8	6.49 30.8 62.9	22 (7x30) 15Ω/M' 49.2Ω/km	4.6Ω/M' 15.1Ω/km	.300	7.62	35	115	63	207
								Color code chart No. 1, Technical Information Section.					
	New 9947†	15	100 500 1000	30.5 152.4 304.8	8.65 41.7 86.6	22 (7x30) 15Ω/M' 49.2Ω/km	4.1Ω/M' 13.5Ω/km	.340	8.63	35	115	63	207
								Color code chart No. 2R, Technical Information Section.					
 Beldfoil 100% Shield Coverage 2464 300V 80C	**New 9948†**	25	100 500 1000	30.5 152.4 304.8	12.6 64.3 126.5	22 (7x30) 15Ω/M' 49.2Ω/km	3.1Ω/M' 10.2Ω/km	.410	10.41	35	115	63	207
								Color code chart No. 2R, Technical Information Section.					
	New 9949†	37	100 500 1000	30.5 152.4 304.8	17.8 88.5 175.9	22 (7x30) 15Ω/M' 49.2Ω/km	2.7Ω/M' 8.8Ω/km	.460	11.68	35	115	63	207
								Color code chart No. 2R, Technical Information Section.					
	New 9950†	50	100 500 1000	30.5 152.4 304.8	23.4 116.4 233.4	22 (7x30) 15Ω/M' 49.2Ω/km	2.3Ω/M' 7.5Ω/km	.555	14.10	35	115	63	207
								Color code chart No. 2R, Technical Information Section.					

†Passes the VW-1 Vertical Wire Flame Test.
‡At 1 Khz.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.

Paired Cables

The cables in this section are organized first by shielding (from simple to complex) and secondly, in order of descending gage size (i.e. 28 gage, 24 gage, 22 gage, . . .). Cables are further grouped by insulation types—within each particular shielding/gage category.

Belden paired cables are manufactured in a wide variety of gage sizes, dimensions, insulation materials, shielding configurations and jacketing materials to meet the technical requirements of many different types of systems.

Paired cables allow balanced signal transmission which results in lower crosstalk through common mode rejection. Due to the improved noise immunity of twisted pairs, data speeds are usually higher than those of multi-conductor cables.

As an aid to proper cable selection, both the suggested working voltages and the maximum temperature ratings are indicated for each product in this section. The majority of these products have passed the VW-1 Vertical Flame Test.

Custom Design Center

If you have a new or unusual application or you cannot find cable in this section which meets your technical requirements, contact Belden's Product Engineering Group. Phone 317/983-5200.

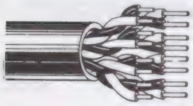
Packaging

Belden's unique UNREEL® cable dispenser is available for many of the cables listed in this section. The letter "U" before the specified put-up length denotes UNREEL packaging.

Telephone Cables

24 Gage
Solid Conductors
PVC Insulated

Product Description
Tinned copper, PVC insulated, conductors cabled, chrome PVC jacket.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		Inch	mm	Inch	mm	Inch	mm
 2576 150V 80C	**9562†**	2	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	2.2 9.7 10.2 18.3 19.0	.010	.25	.032	.81	.199	5.05
	9566†	6	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	4.6 20.4 21.2 39.8 46.7	.010	.25	.032	.81	.289	7.34
	9570†	10	100 500 1000	30.5 152.4 304.8	6.7 31.7 64.3	.010	.25	.035	.89	.310	7.87
	9585†	25	100 500 1000	30.5 152.4 304.8	14.6 76.1 141.1	.010	.25	.040	1.02	.480	12.19

Color Code Chart for Paired Telephone Cables

Pair	Color	
	Tip	Ring
1st	White	Blue
2nd	White	Orange
3rd	White	Green
4th	White	Brown
5th	White	Slate
6th	Red	Blue
7th	Red	Orange
8th	Red	Green
9th	Red	Brown
10th	Red	Slate
11th	Black	Blue
12th	Black	Orange
13th	Black	Green
14th	Black	Brown
15th	Black	Slate
16th	Yellow	Blue
17th	Yellow	Orange
18th	Yellow	Green
19th	Yellow	Brown
20th	Yellow	Slate
21st	Violet	Blue
22nd	Violet	Orange
23rd	Violet	Green
24th	Violet	Brown
25th	Violet	Slate

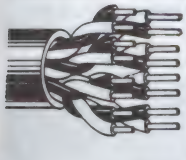
†Passes the VW-1 Vertical Wire Flame Test.

Sound and Control Cables

22 Gage
Solid Conductors
PVC Insulated

Product Description

Tinned copper, PVC insulated, twisted pairs, chrome PVC jacket. Color code chart No. 3, Technical Information Section.

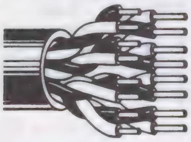
Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		Inch	mm	Inch	mm	Inch	mm
	**8740** UL LISTED Wires, Misc. 90V Max. 80C	1	U-500 U-1000	U-152.4 U-304.8	7.7 14.3	.015	.38	.025	.64	.166	4.22
	8741† ЯU 2464 300V 80C	2	U-500 U-1000 1000	U-152.4 U-304.8 304.8	13.1 25.0 25.0	.015	.38	.032	.81	.209	5.31
						For Plenum version, see 88741 on page 127.					
	8742† ЯU 2464 300V 80C	3	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	3.9 17.6 18.3 34.2 35.2	.015	.38	.032	.81	.244	6.20
						For Plenum version, see 88742 on page 127.					
	8757† ЯU 2464 300V 80C	4	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	22.3 23.1 43.6 47.6	.015	.38	.032	.81	.259	6.58
						For Plenum version, see 88757 on page 127.					
	9158† ЯU 2464 300V 80C	5	100 500 1000	30.5 152.4 304.8	5.9 27.9 57.0	.013	.33	.040	1.02	.307	7.80
	8743† ЯU 2576 150V 80C	6	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	5.5 26.1 27.0 51.3 55.6	.010	.25	.035	.89	.305	7.75
						For Plenum version, see 88743 on page 127.					
	9160† ЯU 2464 300V 80C	8	500 1000	152.4 304.8	38.9 81.2	.013	.33	.040	1.02	.346	8.79
	8744† ЯU 2576 150V 80C	9	100 500 1000	30.5 152.4 304.8	8.0 38.0 74.3	.010	.25	.037	.94	.354	8.99

†Passes the VW-1 Vertical Wire Flame Test.

Sound and Control Cables

22 Gage (cont'd.)
Solid Conductors
PVC Insulated

Product Description
Tinned copper, PVC insulated, twisted pairs, chrome PVC jacket. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm
 ЯU 2576 150V 80C	**8753†**	11	100 500 1000	30.5 152.4 304.8	9.3 47.8 93.5	.010	.25	.037	.94	.369	9.37
	8754†	13	100 500 1000	30.5 152.4 304.8	10.5 54.3 106.6	.010	.25	.037	.94	.394	10.01
	8745†	15	100 500 1000	30.5 152.4 304.8	12.0 61.2 120.4	.010	.25	.040	1.02	.405	10.29
	8755†	19	100 500 1000	30.5 152.4 304.8	15.7 76.7 151.2	.010	.25	.040	1.02	.460	11.68
	8756†	23	500 1000	152.4 304.8	89.8 176.5	.010	.25	.040	1.02	.495	12.57
	8746†	27	500 ◆ 1000 ◆	152.4 304.8	105.5 212.0	.010	.25	.045	1.14	.535	13.59

22 Gage
Solid Conductors
Polyethylene Insulated

Product Description
Bare copper, polyethylene insulated, conductors cabled, rose gray PVC jacket. Color code: Red, Green.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm
	8795 ЯU 2092 300V 60C	1	U-500 U-1000 1000	U-152.4 U-304.8 304.8	8.2 15.5 16.1	.016	.41	.022	.56	.160	4.06

22 Gage
Stranded Conductors (7x30)
PVC Insulated

Product Description
Tinned copper, PVC insulated, twisted pair, PVC jacket. Color code: Black, Red.

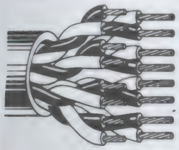
Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm
 Ⓤ LISTED Wires, Misc. 90V Max. 80C	**8442**	1	100 Chrome	30.5	1.8	.015	.38	.025	.64	.170	4.32
			U-500 Chrome Lt. Beige	U-152.4	7.9	**For Plenum version, see 88442 on page 127.**					
			500 Chrome Lt. Beige	152.4	7.4						
			U-1000 Chrome Lt. Beige	U-304.8	14.7						
			1000 Chrome Lt. Beige	304.8	15.3						

†Passes the VW-1 Vertical Wire Flame Test.
◆ Spools are one piece, but length may vary +20% –0 from length shown.

Sound and Control Cables

22 Gage (cont'd.)
Stranded Conductors (7x30)
PVC Insulated

Product Description
Tinned copper, PVC insulated, twisted pairs, chrome PVC jacket. Color code chart No. 3, Technical Information Section.

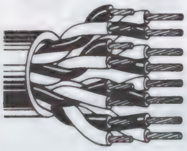
Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		Inch	mm	Inch	mm	Inch	mm
	**9744†** ЯU 2464 300V 80C	2	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	14.2 14.9 27.3 28.3	.015	.38	.032	.81	.238	6.04
	9745† ЯU 2464 300V 80C	3	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	18.7 19.5 36.3 41.0	.015	.38	.032	.81	.284	7.21
	9746† ЯU 2464 300V 80C	4	500 1000	152.4 304.8	23.5 49.1	.015	.38	.032	.81	.299	7.59
	8747† ЯU 2576 150V 80C	6	100 500 1000	30.5 152.4 304.8	6.0 28.2 58.4	.010	.25	.035	.89	.320	8.13
	8748† ЯU 2576 150V 80C	9	100 500 1000	30.5 152.4 304.8	8.4 43.0 85.6	.010	.25	.037	.94	.389	9.88
	9747† ЯU 2576 150V 80C	12	100 500 1000	30.5 152.4 304.8	11.8 57.5 108.1	.010	.25	.040	1.02	.425	10.80
	8749† ЯU 2576 150V 80C	15	100 500 1000	30.5 152.4 304.8	13.5 67.0 131.0	.010	.25	.040	1.02	.440	11.18
	9748† ЯU 2576 150V 80C	19	100 500 1000	30.5 152.4 304.8	16.8 81.6 160.3	.010	.25	.040	1.02	.505	12.83
	9749† ЯU 2576 150V 80C	23	100 500 1000	30.5 152.4 304.8	20.1 98.0 197.0	.010	.25	.045	1.14	.555	14.10
	8750† ЯU 2576 150V 80C	27	250◆ 500◆ 1000◆	76.2 152.4 304.8	56.4 110.7 222.5	.010	.25	.045	1.14	.575	14.61

†Passes the VW-1 Vertical Wire Flame Test.
◆ Spools are one piece, but length may vary +20% −0 from length shown.

Sound and Control Cables

20 Gage
Stranded Conductors (10x30)
PVC Insulated

Product Description
Tinned copper, PVC insulated, twisted pairs, chrome PVC jacket. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		Inch	mm	Inch	mm	Inch	mm
	**8205†** (UL) LISTED Wires, Misc. 90V 80C	1	100 Chrome	30.5	2.1	.018	.46	.025	.64	.190	4.83
			U-500 Chrome Lt. Beige	U-152.4	9.5						
			500 Chrome Lt. Beige	152.4	9.3						
			U-1000 Chrome	U-304.8	18.0						
			1000 Chrome Lt. Beige	304.8	19.0						
	9750† ЯU 2464 300V 80C	3	100 500 1000	30.5 152.4 304.8	5.9 25.8 53.2	.013	.33	.040	1.02	.309	7.85
	9751† ЯU 2464 300V 80C	6	100 500 1000	30.5 152.4 304.8	8.7 45.1 90.2	.013	.33	.040	1.02	.376	9.55
	9752† ЯU 2464 300V 80C	9	100 500 1000	30.5 152.4 304.8	13.2 65.2 127.0	.013	.33	.040	1.02	.439	11.15
	9755† ЯU 2464 300V 80C	15	100 500 1000	30.5 152.4 304.8	19.5 97.9 196.8	.013	.33	.040	1.02	.545	13.84

19 Gage
Solid Conductors
PVC Insulated

Product Description
Bare copper, PVC insulated, twisted pair, chrome PVC jacket. Suggested working voltage: 350. Color code: Brown, Tan.

	8486† 80C	1	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	10.3 10.0 19.6 20.3	.015	.38	.025	.64	.182	4.62

†Passes the VW-1 Vertical Wire Flame Test.

Sound and Control Cables

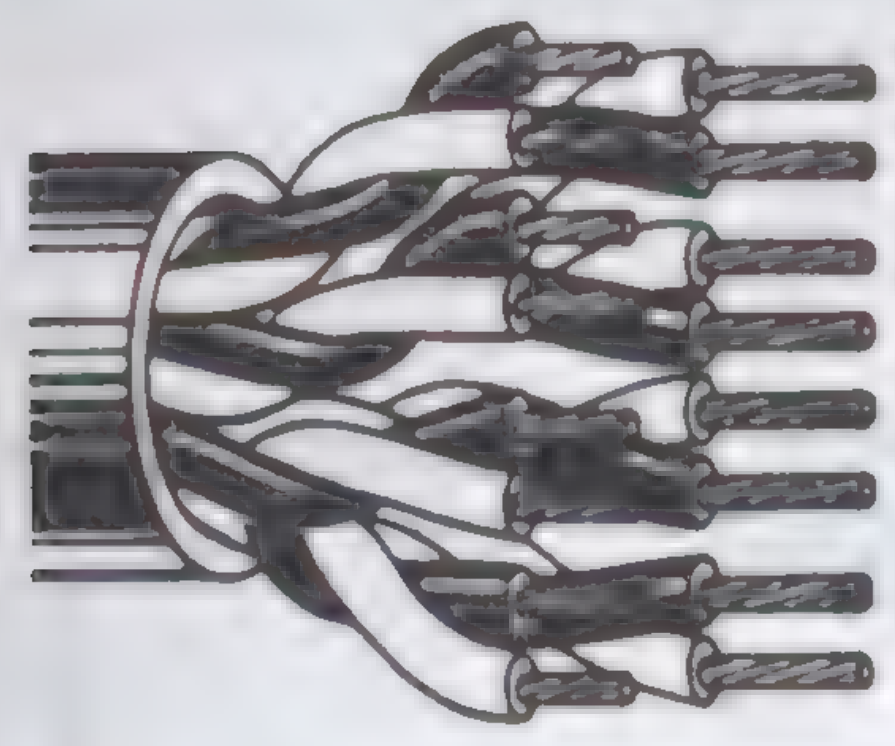
18 Gage
Stranded Conductors (7x26)
PVC Insulated

Product Description
Tinned copper, PVC insulated, twisted pair, PVC jacket. Color code: Black, White.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		Inch	mm	Inch	mm	Inch	mm
UL LISTED Wires, Misc. 90V Max. 80C	**8461**	1	100 Chrome Lt. Beige	30.5	3.3	.020	.51	.028	.71	.226	5.74
			U-500 Chrome Lt. Beige	U-152.4	14.0						
			500 Chrome Lt. Beige	152.4	14.8						
			U-1000 Chrome Lt. Beige	U-304.8	27.2						
			1000 Chrome Lt. Beige	304.8	28.0						

18 Gage
Stranded Conductors (16x30)
PVC Insulated

Product Description
Tinned copper, PVC insulated, twisted pairs, chrome PVC jacket. Color code chart No. 3, Technical Information Section.

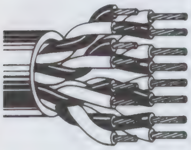
Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		Inch	mm	Inch	mm	Inch	mm
 UR 2464 300V 80C	**9740†**	1	U-500	U-152.4	14.1	.018	.46	.032	.81	.224	5.69
			500	152.4	14.8	**For Plenum version, see 89740 on page 127.**					
			U-1000	U-304.8	27.3						
			1000	304.8	28.1						
	9156†	2	U-500	U-152.4	22.6	.013	.33	.035	.89	.287	7.29
			500	152.4	23.8						
			U-1000	U-304.8	44.2						
			1000	304.8	48.2						
	8690†	3	100	30.5	7.5	.018	.46	.037	.94	.362	9.19
			U-500	U-152.4	35.3						
			500	152.4	36.3						
			1000	304.8	76.2						
	9157†	4	100	30.5	8.4	.013	.33	.040	1.02	.358	9.09
			500	152.4	43.0						
			1000	304.8	85.4						
	9159†	5	500	152.4	56.5	.013	.33	.050	1.27	.416	10.56
			1000	304.8	111.0						
	8691†	6	100	30.5	14.7	.018	.46	.045	1.14	.475	12.07
			500	152.4	71.9						
			1000	304.8	141.0						
	9161†	8	100	30.5	16.4	.013	.33	.050	1.27	.478	12.14
			500	152.4	81.2						
			1000	304.8	159.5						

†Passes the VW-1 Vertical Wire Flame Test.

Sound and Control Cables

18 Gage (cont'd.)
Stranded Conductors (16x30)
PVC Insulated

Product Description
Tinned copper, PVC insulated, twisted pairs, chrome PVC jacket. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm
 ЯU 2464 300V 80C	**8692†**	9	100 500 1000	30.5 152.4 304.8	23.8 107.0 215.0	.018	.46	.055	1.40	.600	15.24
	9741†	12	100 500 1000	30.5 152.4 304.8	28.5 135.2 263.3	.018	.46	.055	1.40	.675	17.15
	9742†	15	100 500 1000	30.5 152.4 304.8	34.8 165.9 335.8	.018	.46	.060	1.52	.735	18.67
	9743†	19	100 500 1000	30.5 152.4 304.8	43.5 213.0 462.0	.018	.46	.070	1.78	.865	21.97

16 Gage
Stranded Conductors (19x29)
PVC Insulated

Product Description
Tinned copper, PVC insulated, twisted pair, chrome PVC jacket. Color code: Black, White.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm
	8471† ЯU 2598 300V 60C	1	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	18.9 19.7 37.0 37.9	.023	.58	.032	.81	.260	6.60

14 Gage
Stranded Conductors (19x27)
PVC Insulated

Product Description
Tinned copper, PVC insulated, twisted pair, chrome PVC jacket. Suggested working voltage: 600. Color code: Black, White.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm
	8473† 80C	1	U-500 500 1000	U-152.4 152.4 304.8	29.2 30.0 63.8	.031	.79	.035	.89	.332	8.43

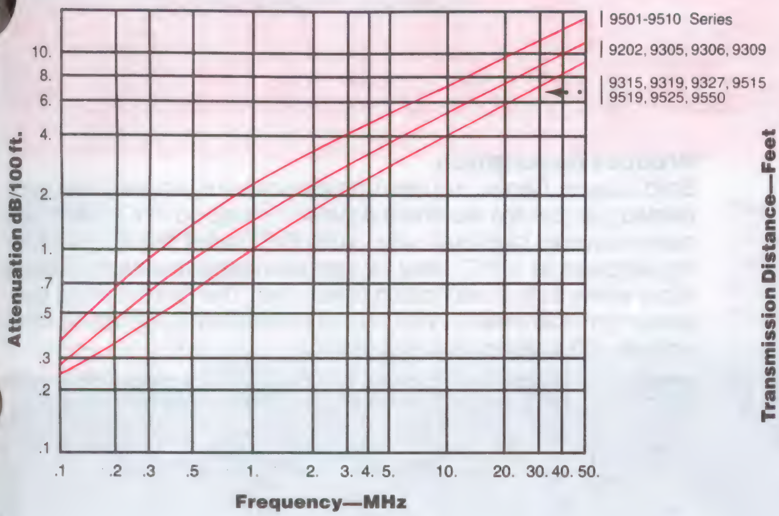
12 Gage
Stranded Conductors (19x25)
PVC Insulated

Product Description
Tinned copper, PVC insulated, twisted pair, chrome PVC jacket. Suggested working voltage: 600. Color code: Black, White.

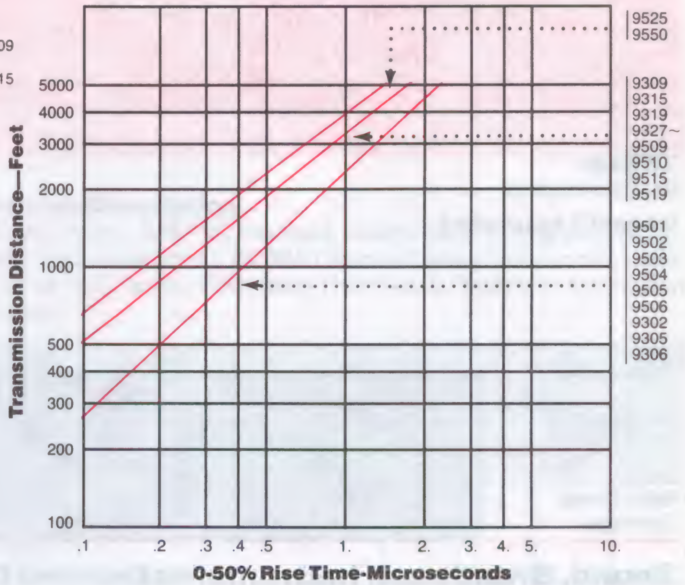
Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm
	8477† 80C	1	U-500 500 1000	U-152.4 152.4 304.8	41.8 44.8 89.1	.031	.79	.040	1.02	.384	9.75

†Passes the VW-1 Vertical Wire Flame Test.

Attenuation Chart

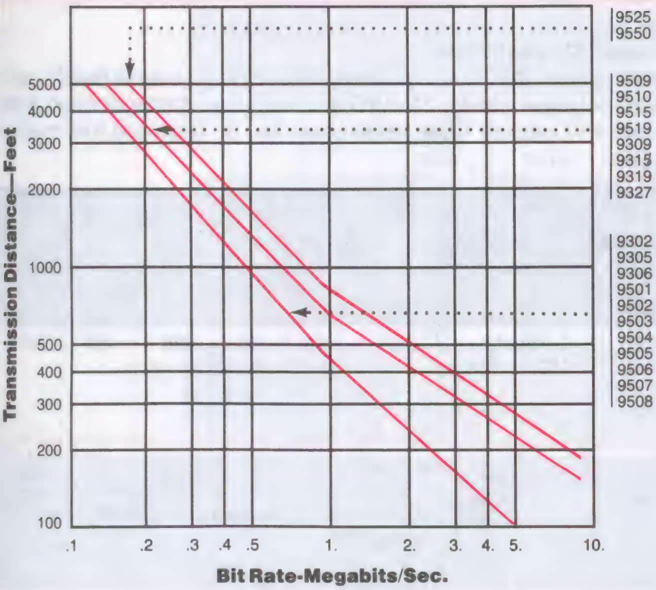


Rise Time



Cables are terminated in their characteristic impedance. Signal source electrical characteristics: 50 ohms and 10% to 90% rise time less than 5 nanoseconds.

Bit Rate



Charts assume 5% peak-to-peak time jitter as determined by eye pattern measurements of pseudorandom NRZ code.

Sound, Broadcast, Audio and Instrumentation Cables

Description	Trade & U.L. Style Number	No. of Pairs	Standard Length		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
Beldfoil 100% Shield Coverage	**8640†** 105C	1	250 U-500 500	76.2 U-152.4 152.4	1.5 3.1 2.6	.0025	.064	.020	.51	.090	2.29	55	180	105	344

28 Gage
Solid Conductors

Geosol™ Insulated

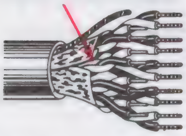
Product Description
Solid copper, Geosol insulated (solderable—no stripping required), twisted pair, Beldfoil aluminum-polyester shield, 30 AWG solid tinned copper covered steel drain wire, white PVC jacket. Maximum operating temperature 105°C. Ideal for instrumentation and Audio Console Work where subminiaturization is required. The Beldfoil shield combines high cable reliability with ease of termination. Suggested working voltage: 100. Color code: Black, Red.

Sound, Broadcast, Instrumentation and Computer Cables For EIA RS-232 Applications

24 Gage
Stranded Conductors (7x32)

S-R PVC Insulated

Product Description
Tinned copper, S-R PVC insulated, twisted pairs, overall Beldfoil aluminum-polyester shield, 24 AWG stranded tinned copper drain wire, chrome PVC jacket. Color code chart No. 3, Technical Information Section.

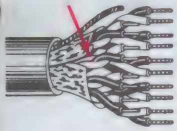
Description	Trade & U.L. Style Number	No. of Pairs	Standard Length		Std. Unit Lbs. ea.	Nom. D.C.R.		Nominal O.D.		Nominal Capacitance‡			
			ft.	m		Conductor	Shield	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
Shorting Fold  Beldfoil 100% Shield Coverage 2464 300V 80C S-R PVC	**9501†**	1	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	1.7 7.7 7.4 14.3 15.0	24 (7x32) 24Ω/M′ 78.7Ω/km	18Ω/M′ 59.1Ω/km	.156	3.96	40	131	74	243
	9502†	2	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	3.3 15.1 15.8 29.4 30.3	24 (7x32) 24Ω/M′ 78.7Ω/km	18Ω/M′ 59.1Ω/km	.222	5.64	30	98	50	164
	9503†	3	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	3.3 14.7 15.3 28.7 29.6	24 (7x32) 24Ω/M′ 78.7Ω/km	16.5Ω/M′ 54.1Ω/km	.232	5.89	30	98	50	164
								For Plenum version, see 89503 on page 128.					
	9504†	4	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	4.1 18.2 18.9 35.5 36.5	24 (7x32) 24Ω/M′ 78.7Ω/km	16.5Ω/M′ 54.1Ω/km	.265	6.73	30	98	50	164
								For Plenum version, see 89504 on page 128.					
	9505†	5	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	4.9 22.6 23.4 44.1 48.5	24 (7x32) 24Ω/M′ 78.7Ω/km	16.5Ω/M′ 54.1Ω/km	.295	7.49	30	98	50	164
								For Plenum version, see 89505 on page 128.					

†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
‡At 1 Khz.

Sound, Broadcast, Instrumentation and Computer Cables For EIA RS-232 Applications

24 Gage
Stranded Conductors (7x32)
S-R PVC Insulated

Product Description
Tinned copper, S-R PVC insulated, twisted pairs, overall Beldfoil aluminum-polyester shield, 24 AWG stranded tinned copper drain wire, chrome PVC jacket. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nom. D.C.R.		Nominal O.D.		Nominal Capacitance‡			
			ft.	m		Conductor	Shield	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
Shorting Fold 	**9506†**	6	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	5.2 24.3 25.2 47.6 52.0	24 (7x32) 24Ω/M′ 78.7Ω/km	15.2Ω/M′ 49.9Ω/km	.295	7.49	30	98	50	164
Beldfoil Coverage 100% Shield Coverage	**9507†**	7	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	5.8 26.6 27.5 52.3 57.0	24 (7x32) 24Ω/M′ 78.7Ω/km	15.2Ω/M′ 49.9Ω/km	300	7.62	30	98	50	164
2464 300V 80C	**9508†**	8	100 500 1000	30.5 152.4 304.8	6.6 31.6 67.4	24 (7x32) 24Ω/M′ 78.7Ω/km	15.0Ω/M′ 49.2Ω/km	.330	8.38	30	98	50	164
S-R PVC	**9509†**	9	100 500 1000	30.5 152.4 304.8	7.3 34.7 73.8	24 (7x32) 24Ω/M′ 78.7Ω/km	15.0Ω/M′ 49.2Ω/km	.340	8.64	30	98	50	164
	9510†	10	100 500 1000	30.5 152.4 304.8	8.1 41.2 82.0	24 (7x32) 24Ω/M′ 78.7Ω/km	14.0Ω/M′ 45.9Ω/km	.380	9.65	30	98	50	164
	9515†	15	100 500 1000	30.5 152.4 304.8	11.7 55.6 109.1	24 (7x32) 24Ω/M′ 78.7Ω/km	13.8Ω/M′ 45.3Ω/km	.425	10.80	30	98	50	164
	9519†	19	100 500 1000	30.5 152.4 304.8	13.6 67.4 131.7	24 (7x32) 24Ω/M′ 78.7Ω/km	13.5Ω/M′ 44.3Ω/km	.460	11.68	30	98	50	164
	9525†	25	100 500 1000	30.5 152.4 304.8	17.2 85.4 168.2	24 (7x32) 24Ω/M′ 78.7Ω/km	12.7Ω/M′ 41.7Ω/km	.515	13.08	30	98	50	164
	9550†	50	100 500 1000	30.5 152.4 304.8	30.5 155.1 314.2	24 (7x32) 242Ω/M′ 78.7Ω/km	11.3Ω/M′ 37.1Ω/km	.700	17.78	30	98	50	164
								For color code information, request Technical Bulletin T/8-4.					

†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
‡At 1 Khz.

Paired
Overall Beldfoil® Shield

Sound, Broadcast, Audio and Instrumentation Cables

Description	Trade & U.L. Style Number	No. of Pairs	Standard Length		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m

24 Gage
Stranded Conductors (7x32)

Polyethylene Insulated

Product Description
Tinned copper, polyethylene insulated, twisted pair, Beldfoil aluminum-polyester shield, 24 AWG stranded tinned copper drain wire, chrome PVC jacket. The Beldfoil shield combines high cable reliability with ease of termination. Color code: Black, Clear.

Z-Fold Beldfoil 100% Shield Coverage	**8641** ЯU 2092 300V 60C	1	100 U-500 500 U-1000 1000 2000	30.5 U-152.4 152.4 U-304.8 304.8 609.6	1.8 7.7 7.4 14.4 15.1 28.6	.016	.41	.025	.64	.168	4.27	22	72	42	138
						For Plenum version, see 88641 on page 128.									

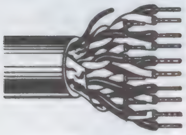
Computer Cables
Low Capacitance Cables For EIA RS-232 Applications

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m	

24 Gage
Stranded Conductors (7x32)

Polypropylene Insulated

Product Description
Tinned copper, polypropylene insulated, twisted pairs, overall Beldfoil aluminum-polyester shield, 24 AWG stranded tinned copper drain wire, chrome PVC jacket. Color code chart No. 5, Technical Information Section.

 Beldfoil 100% Shield Coverage ЯU 2919 30V 80C	**New 9680**	3	100 500 1000	30.5 152.4 304.8	4.2 19.6 40.3	24 (7x32) 24Ω/M' 78.7Ω/km	15.5Ω/M' 50.9Ω/km	.285	7.24	100	66%	15.5	50.8	27.5	90.2	2.1
	New 9681	4	100 500 1000	30.5 152.4 304.8	4.9 23.0 47.2	24 (7x32) 24Ω/M' 78.7Ω/km	14.5Ω/M' 47.6Ω/km	.310	7.87	100	66%	15.5	50.8	27.5	90.2	2.1
	New 9682	6	100 500 1000	30.5 152.4 304.8	6.1 28.9 61.4	24 (7x32) 24Ω/M' 78.7Ω/km	13.8Ω/M' 45.3Ω/km	.350	8.89	100	66%	15.5	50.8	27.5	90.2	2.1
	New 9683	9	100 500 1000	30.5 152.4 304.8	7.7 40.0 78.0	24 (7x32) 24Ω/M' 78.7Ω/km	12.7Ω/M' 41.7Ω/km	.395	10.03	100	66%	15.5	50.8	27.5	90.2	2.1
	New 9684	12½ 12 pairs + 1 single	100 500 1000	30.5 152.4 304.8	11.2 54.9 106.9	24 (7x32) 24Ω/M' 78.7Ω/km	11.8Ω/M' 38.7Ω/km	.460	11.68	100	66%	15.5	50.8	27.5	90.2	2.1

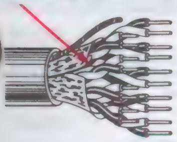
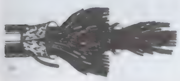
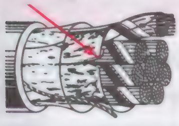
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductor connected to shield.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

Paired
Overall Beldfoil® Shield

Sound, Broadcast, Instrumentation and Computer Cables

22 Gage
Solid Conductors
PVC Insulated

Product Description
Tinned copper, PVC insulated, twisted pairs, overall Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, chrome PVC jacket. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Length		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance‡			
			ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
Shorting Fold  Beldfoil 100% Shield Coverage 2464 300V 80C	**9302†**	2	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	3.4 15.8 15.6 29.1 30.1	.013	.33	.032	.81	.244	6.20	35	115	50	164
	9305†	4	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	4.8 22.4 23.2 43.8 44.9	.013	.33	.032	.81	.265	6.73	35	115	50	164
	9306†	6	100 500 1000	30.5 152.4 304.8	6.9 32.6 60.5	.013	.33	.035	.89	.321	8.15	35	115	50	164
	9309†	9	100 500 1000	30.5 152.4 304.8	9.4 47.2 94.4	.013	.33	.037	.94	.373	9.47	35	115	50	164
	9315†	15	100 500 1000	30.5 152.4 304.8	14.7 71.8 140.6	.013	.33	.040	1.02	.455	11.56	35	115	50	164
	9319†	19	100 500 1000	30.5 152.4 304.8	17.6 87.6 172.2	.013	.33	.040	1.02	.495	12.57	35	115	50	164
	9327†	27	100 500 1000	30.5 152.4 304.8	24.3 123.9 240.8	.013	.33	.045	1.14	.615	15.62	35	115	50	164
 Beldfoil 100% Shield Coverage	**8751†** 80C	51	250 ◆ 500 ◆ 1000 ◆ 1500 ◆	76.2 152.4 304.8 457.2	94.1 189.2 379.9 602.6	.010	.25	.050	1.27	.710	18.03	30	98	42.8	140
						Product Description: Tinned copper, PVC insulated, twisted pairs, Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, chrome PVC jacket. For color-coding information, write for Technical Bulletin T/8-4. For 38 pair polypropylene version, see 8752 on page 48. Suggested working voltage: 200.									
Shorting Fold  Beldfoil 100% Shield Coverage	**9753†** 80C	102	250 ◆ 500 ◆ 1000 ◆ 1500 ◆	76.2 152.4 304.8 457.2	215.3 438.7 879.3 1380.0	.010	.25	.085	2.16	1.120	28.45	32	105	40	131
						Product Description: Tinned copper, PVC insulated, twisted pairs, Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, chrome PVC jacket. For color-coding information, write for Technical Bulletin T/8-22. Suggested working voltage: 200.									

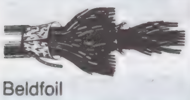
†Passes the VW-1 Vertical Wire Flame Test.
◆Spools are one piece, but length may vary +20% −0 from length shown.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
‡At 1 Khz.

Paired
Overall Beldfoil® ⊗Shield

Sound, Broadcast, Instrumentation and Computer Cables

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m

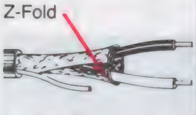
22 Gage
Solid Conductors
Polypropylene Insulated

Description	Trade & U.L. Style Number	No. of Pairs	ft.	m	Std. Unit Lbs. ea.	Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil 100% Shield Coverage	**8752**† 80C	38	250 ◆ 500 ◆ 1000 ◆	76.2 152.4 304.8	64.7 131.3 255.6	.008	.20	.045	1.14	.610	15.49	17	56	24.3	80

Product Description: Tinned copper, polypropylene insulated, twisted pairs, Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, chrome PVC jacket. For color-coding information, write for Technical Bulletin T/8-4. Suggested working voltage: 200.

Sound, Broadcast, Audio and Instrumentation Cables

22 Gage
Solid Conductors
Polypropylene insulated

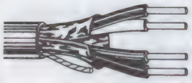
Description	Trade & U.L. Style Number	No. of Pairs	ft.	m	Std. Unit Lbs. ea.	Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil 100% Shield Coverage	**8450**† 105C	1	100 250 U-500 500 U-1000 1000	30.5 76.2 U-152.4 152.4 U-304.8 304.8	1.5 3.3 6.5 6.2 12.1 11.9	.006	.15	.018	.46	.118	3.00	40	131	76	249

Product Description: Tinned copper, polypropylene insulated, twisted pair, Beldfoil aluminum-polyester shield, 22 AWG solid tinned copper drain wire, paper wrap, gray or black PVC jacket. 100% shield coverage. Belden's Miniature Type Broadcast Audio and Instrumentation Cables occupy ½ to ⅔ less space than standard cables. Suggested working voltage: 200.
Color code: Black, Red.

Computer Cables

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	

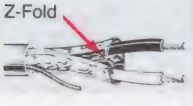
22 Gage
Solid Conductors
Datalene® Insulated

Description	Trade & U.L. Style Number	No. of Pairs	ft.	m	Std. Unit Lbs. ea.	Conductor	Shield	Inch	mm	Nom. Imp. Ω	Nom. Vel. of Prop.	* pF/ft.	* pF/m	** pF/ft.	** pF/m	6 dbv Length Limit in Thnds. of ft.
 Duofoil® 100% Shield Coverage	**9184**†⊗ UL 2668 30V 60C	2	500 1000	152.4 304.8	31.0 61.9	22 (Solid) tinned copper 16.1Ω/M′ 52.8Ω/km	Duofoil with stranded tinned copper drain wire 6.3Ω/M′ 20.7Ω/km	.385	9.78	150	78%	8.8	28.9	15.0	49.2	4.6

Product Description: Tinned copper, Datalene® insulated, twisted pairs, Duofoil aluminum-polyester-aluminum shield, 22 AWG stranded tinned copper drain wire, black PVC jacket.
Color code: Black/Yellow, Red/Blue.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance‡			
			ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m

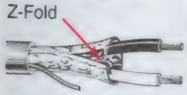
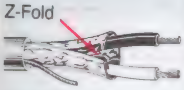
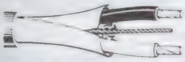
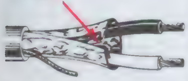
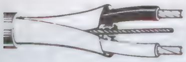
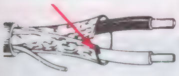
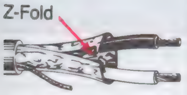
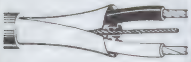
22 Gage
Stranded Conductors (7x30)
S-R PVC Insulated

Description	Trade & U.L. Style Number	No. of Pairs	ft.	m	Std. Unit Lbs. ea.	Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil 100% Shield Coverage	**9414**† UL 2464 300V 80C	1	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	2.3 10.5 10.2 19.7 20.4	.010	.254	.035	.89	.180	4.57	50	164	95	312

Product Description: Tinned copper, S-R PVC insulated, twisted pair, Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, pale fawn beige jacket-striated PVC.
Color code: White, Black.

⊗Duofoil shield on 9184
†Passes the VW-1 Vertical Wire Flame Test.
◆Spools are one piece, but length may vary +20% −0 from length shown.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
‡At 1 Khz.

Sound, Broadcast, Audio and Instrumentation Cables

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
22 Gage Stranded Conductors (7x30)															
Z-Fold  Beldfoil 100% Shield Coverage	**9462†** ЯU 2464 300V 80C	1	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	2.2 9.7 9.4 18.3 19.1	.013	.33	.031	.79	.178	4.52	50	164	90	295
						Product Description: Tinned copper, **PVC insulated,** twisted pair, Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, chrome PVC jacket. Color code: Black, Red.									
Z-Fold  Beldfoil 100% Shield Coverage	**8761** ЯU 2092 300V 60C	1	U-500 500 U-1000 1000 2000 5000	U-152.4 152.4 U-304.8 304.8 609.6 1524.0	9.0 8.7 16.9 17.7 34.1 88.1	.016	.41	.025	.64	.175	4.45	24	79	47	154
						Product Description: Tinned copper, **polyethylene insulated,** twisted pair, Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, chrome PVC jacket. 100% shield coverage. Color code: Black, Clear. **For Plenum version, see 88761 on page 128.**									
 Beldfoil 100% Shield Coverage	**9461** ЯU 2092 300V 60C	1	U-500 U-1000	U-152.4 U-304.8	8.8 16.2	.016	.41	.026	.66	.180	4.57	24	79	47	154
						Product Description: Tinned copper, **polyethylene insulated,** twisted pair, Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, chrome PVC jacket. 100% shield coverage. The jacket and shield are bonded so both can be removed on automatic stripping equipment.									
Z-Fold  Beldfoil 100% Shield Coverage	**8451†** 105C	1	100 250 U-500 500 U-1000	30.5 76.2 U-152.4 152.4 U-304.8	1.7 3.5 7.4 7.0 13.8	.008	.20	.020	.51	.135	3.43	34	111	67	220
						Product Description: Tinned copper, **polypropylene insulated,** twisted pair, Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, paper wrap, gray or black PVC jacket. 100% shield coverage. Belden's Miniature Type Broadcast Audio and Instrumentation Cables occupy ½ to ⅔ less space than standard cables. Suggested working voltage: 200. Color code: Black, Red.									
 Beldfoil 100% Shield Coverage	**9451†** 105C	1	U-500 500 T-1000 U-1000	U-152.4 152.4 T-304.8 U-304.8	7.0 7.0 13.6 12.9	.008	.20	.017	.43	.135	3.43	34	111	67	220
						Product Description: Tinned copper, **polypropylene insulated,** twisted pair, Beldfoil aluminum-polyester shield, AWG stranded tinned copper drain wire, gray PVC jacket. The jacket and shield are bonded so both can be removed on automatic stripping equipment. Drain wire is on the inside of foil shield. Belden's Miniature Type Broadcast Audio and Instrumentation Cables occupy ½ to ⅔ less space than standard cables. Suggested working voltage: 200. Color code: Black, Red.									
20 Gage Solid Conductors															
Shorting Fold 	**9802** 80C **Direct Burial**	1	500 1000	152.4 304.8	10.6 19.7	.013	.33	.035	.89	.190	4.83	25	82	46	150
						Product Description: Tinned copper, **polypropylene insulated,** conductors cabled, Beldfoil aluminum-polyester shield, 22 AWG solid tinned copper drain wire, black high density polyethylene jacket. Suggested working voltage: 350. Color code: White, Black.									
20 Gage Stranded Conductors (7x28)															
Z-Fold  Beldfoil 100% Shield Coverage	**8762** ЯU 2092 300V 60C	1	100 250 U-500 500 U-1000 1000 2000	30.5 76.2 U-152.4 152.4 U-304.8 304.8 609.6	2.6 6.3 12.4 13.0 23.4 24.6 49.8	.016	.41	.028	.71	.204	5.18	27	89	49	161
						Product Description: Tinned copper, **polyethylene insulated,** twisted pair, Beldfoil aluminum-polyester shield, 20 AWG stranded tinned copper drain wire, chrome PVC jacket. Color code: Black, Clear.									
 Beldfoil 100 % Shield Coverage	**9464** ЯU 2092 300V 60C	1	U-500 U-1000	U-152.4 U-304.8	12.7 24.3	.016	.41	.030	.76	.204	5.18	27	89	49	161
						Product Description: Tinned copper, **polyethylene insulated,** twisted pair, Beldfoil aluminum-polyester shield, 20 AWG stranded tinned copper drain wire, chrome PVC jacket. The jacket and shield are bonded so both can be removed on automatic stripping equipment. Drain wire is on the inside of foil shield. Color code: Black, Clear.									

†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.

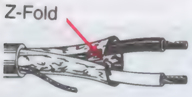
Sound, Broadcast, Audio and Instrumentation Cables

20 Gage (cont'd.)
Stranded Conductors (7x28)

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Nominal Capacitance * pF/ft.	Nominal Capacitance * pF/m	Nominal Capacitance ** pF/ft.	Nominal Capacitance ** pF/m
Z-Fold Beldfoil 100% Shield Coverage	**9154** UL 2464 300V 80C	1	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	11.9 12.5 22.8 23.6	.013	.33	.031	.79	.198	5.03	60	197	100	328

Product Description: Tinned copper, **PVC insulated**, twisted pair, Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, beige PVC jacket. Color code: Black, Red.

18 Gage
Stranded Conductors (16x30)

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Nominal Capacitance * pF/ft.	Nominal Capacitance * pF/m	Nominal Capacitance ** pF/ft.	Nominal Capacitance ** pF/m
Z-Fold  Beldfoil 100% Shield Coverage	**8760** UL 2092 300V 60C	1	250 U-500 500 U-1000 1000 2000 5000	76.2 U-152.4 152.4 U-304.8 304.8 609.6 1524.0	7.5 13.7 15.1 27.4 28.7 58.7 148.2	.018	.46	.028	.71	.222	5.64	24	79	44	144

Product Description: Tinned copper, **polyethylene insulated,** twisted pair, Beldfoil aluminum-polyester shield, 20 AWG stranded tinned copper drain wire, chrome PVC jacket.
Color code: Black, Clear.
For Plenum version, see 88760 on page 128.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Nominal Capacitance * pF/ft.	Nominal Capacitance * pF/m	Nominal Capacitance ** pF/ft.	Nominal Capacitance ** pF/m
 Beldfoil 100% Shield Coverage	**9460** 300V 60C	1	U-500 U-1000	U-152.4 U-304.8	14.5 28.0	.018	.46	.026	.66	.222	5.64	27	89	49	161

Product Description: Tinned copper, **polyethylene insulated,** twisted pair, Beldfoil aluminum-polyester shield, 20 AWG stranded tinned copper drain wire, chrome PVC jacket. The jacket and shield are bonded so both can be removed on automatic stripping equipment. Drain wire is on the inside of foil shield. Color code: Black, Clear.

16 Gage
Stranded Conductors (19x29)

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Nominal Capacitance * pF/ft.	Nominal Capacitance * pF/m	Nominal Capacitance ** pF/ft.	Nominal Capacitance ** pF/m
Z-Fold Beldfoil 100% Shield Coverage	**8719** UL 2106 600V 60C	1	U-500 500 U-1000 1000 2000 5000	U-152.4 152.4 U-304.8 304.8 609.6 1524.0	24.1 25.0 47.2 51.2 104.3 247.8	.032	.81	.032	.81	.304	7.72	23	75	44	144

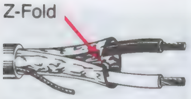
Product Description: Tinned copper, **polyethylene insulated,** twisted pair, Beldfoil aluminum-polyester shield, 18 AWG stranded tinned copper drain wire, chrome PVC jacket.
Color code: Black, Clear.

14 Gage
Stranded Conductors (19x27)

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Nominal Capacitance * pF/ft.	Nominal Capacitance * pF/m	Nominal Capacitance ** pF/ft.	Nominal Capacitance ** pF/m
Z-Fold Beldfoil 100% Shield Coverage	**8720** UL 2106 600V 60C	1	U-500 500 1000 2000	U-152.4 152.4 304.8 609.6	32.5 33.4 70.5 137.9	.032	.81	.035	.89	.340	8.64	24	79	47	154

Product Description: Tinned copper, **polyethylene insulated,** twisted pair, Beldfoil aluminum-polyester shield, 16 AWG stranded tinned copper drain wire, chrome PVC jacket.
Color code: Black, Clear.

12 Gage
Stranded Conductors (19x25)

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Nominal Capacitance * pF/ft.	Nominal Capacitance * pF/m	Nominal Capacitance ** pF/ft.	Nominal Capacitance ** pF/m
Z-Fold  Beldfoil 100% Shield Coverage	**8718** UL 2106 600V 60C	1	U-500 500 1000 2000	U-152.4 152.4 304.8 609.6	48.4 52.4 102.8 206.8	.037	.94	.040	1.02	.400	10.16	25	82	49	161

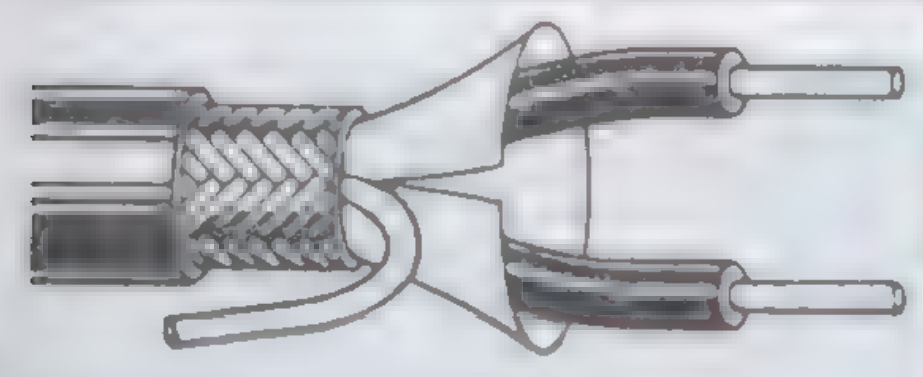
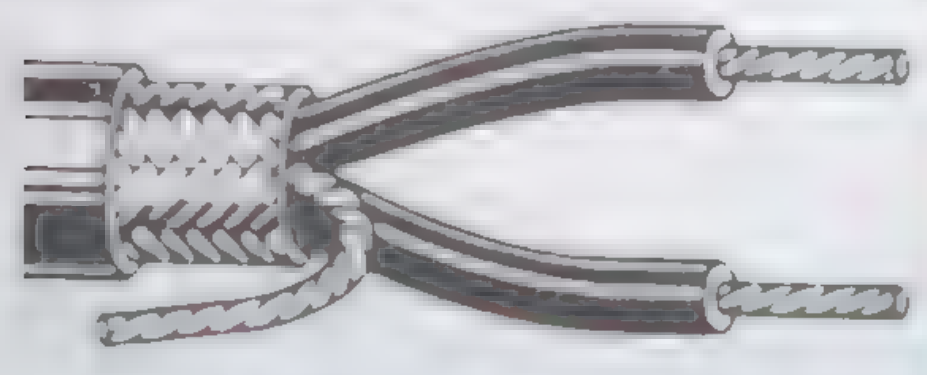
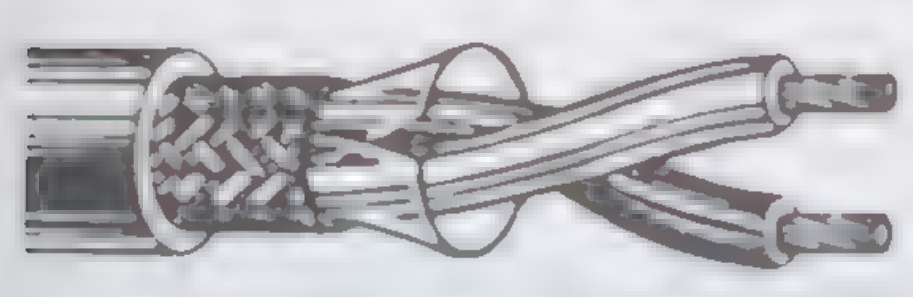
Product Description: Tinned copper, **polyethylene insulated,** twisted pair, Beldfoil aluminum-polyester shield, 14 AWG stranded tinned copper drain wire, chrome PVC jacket.
Color code: Black, Clear.

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.

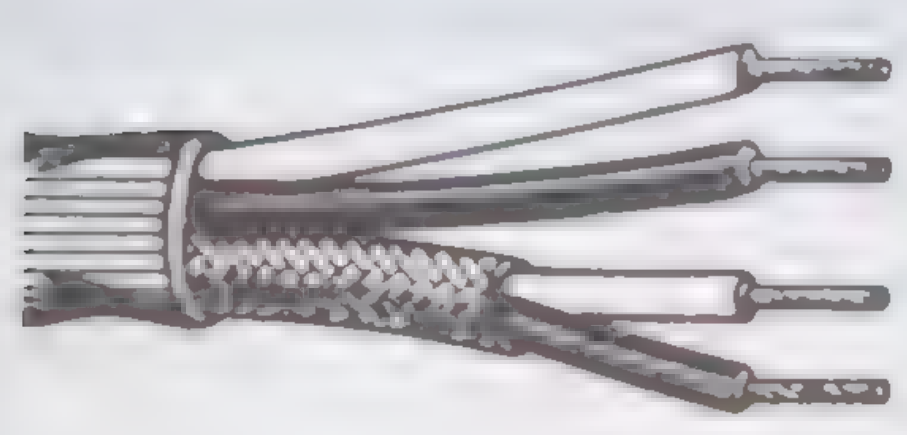
Paired
Overall Braid Shield

BELDEN
COOPER INDUSTRIES

Communication and Instrumentation Cables

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m
22 Gage Solid Conductors **PVC Insulated**																	
 Braid Shield 88% Shield Coverage	**8437†** ЯU 2095 300V 80C	1	500 1000	152.4 304.8	13.8 26.0	Solid	.015	.38	.025	.64	.200	5.08	Black Red	48	157	85	279
						Product Description: Tinned copper, PVC insulated, twisted pair, polyester tape, 22 AWG solid tinned copper drain wire, tinned copper braid shield, black PVC jacket.											
22 Gage Stranded Conductors (16x34) **PVC Insulated**																	
 Braid Shield 86% Shield Coverage	**8441†** ЯU 2095 300V 80C	1	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	2.9 13.1 13.8 25.3 26.1	(16x34)	.015	.38	.025	.64	.210	5.33	Black Red	49	160	86	282
						Product Description: Tinned copper, PVC insulated, twisted pair, 22 AWG stranded tinned copper drain wire, tinned copper braid shield, black PVC jacket.											
18 Gage Stranded Conductors (16x30) **Rubber Insulated**																	
 Braid Shield 80% Shield Coverage	**8208** 80C	1	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	4.3 19.5 20.1 38.0 38.8	(16x30)	.022	.56	.025	.64	.257	6.53	Red White	46	151	77	253
						Product Description: Tinned copper, rubber insulated, twisted pair, separator, tinned copper braid shield, chrome PVC jacket. Suggested working voltage: 200.											

Paired
Combination Braid Shield

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m
22 Gage Stranded Conductors (7x30) **Polyethylene Insulated**																	
 Braid Shield 62% Shield Coverage	**8732** ЯU 2094 300V 60C	2 1 shielded 1 unshielded	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	3.9 17.2 17.9 33.3 34.2	(7x30)	.016	.41	.030	.76	.190 x .300	4.83 x 7.62	Black Clear Black Clear	21	69	37	121
						Product Description: Tinned copper, polyethylene insulated, conductors cabled, tinned copper braid shield over 1 pair, chrome PVC jacket.											

†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.

Paired
Overall Spiral Shield

Sound, Broadcast and Audio Cables

22 Gage
Stranded Conductors (7x30)
PVC Insulated

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Color Coding	Nominal Capacitance * pF/ft.	Nominal Capacitance * pF/m	Nominal Capacitance ** pF/ft.	Nominal Capacitance ** pF/m
Spiral Shield 95% Shield Coverage	**8737†** ЯU 2095 300V 80C	1	100 250 U-500 500 U-1000 1000	30.5 76.2 U-152.4 152.4 U-304.8 304.8	2.4 5.2 10.2 10.0 19.5 20.3	(7x30)	.015	.38	.025	.64	.170	4.32	Black Red	40	131	70	230
						Product Description: Tinned copper, PVC insulated, twisted pair, tinned copper spiral wrapped shield, chrome PVC jacket.											

20 Gage
Stranded Conductors (7x28)
PVC Insulated

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Color Coding	Nominal Capacitance * pF/ft.	Nominal Capacitance * pF/m	Nominal Capacitance ** pF/ft.	Nominal Capacitance ** pF/m
Spiral Shield 87% Shield Coverage	**8759†** ЯU 2095 300V 80C	1	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	2.8 12.7 13.3 24.6 25.4	(7x28)	.016	.41	.025	.64	.199	5.05	Black Red	47	154	79	259
						Product Description: Tinned copper, PVC insulated, twisted pair, tinned copper spiral wrapped shield, chrome PVC jacket.											

18 Gage
Stranded Conductors (7x26)
PVC Insulated

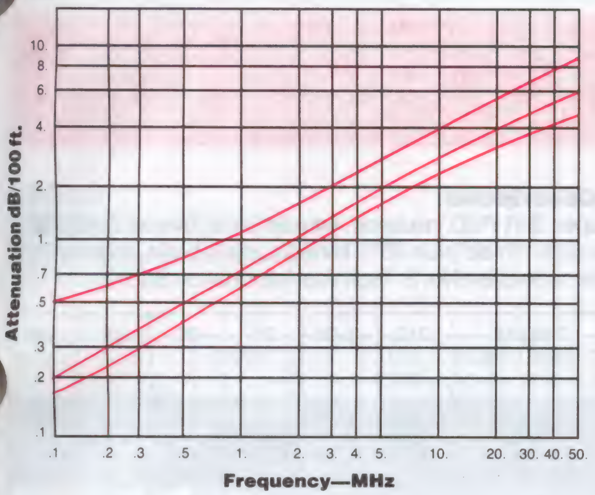
Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Color Coding	Nominal Capacitance * pF/ft.	Nominal Capacitance * pF/m	Nominal Capacitance ** pF/ft.	Nominal Capacitance ** pF/m
Spiral Shield 85% Shield Coverage	**8790†** 80C	1	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	4.1 17.9 17.6 34.8 35.7	(7x26)	.020	.51	.028	.71	.241	6.13	Red White	53	173	92	302
						Product Description: Tinned copper, PVC insulated, twisted pair, tinned copper spiral wrapped shield, chrome PVC jacket. Suggested working voltage: 450.											

16 Gage
Stranded Conductors (19x29)
PVC Insulated

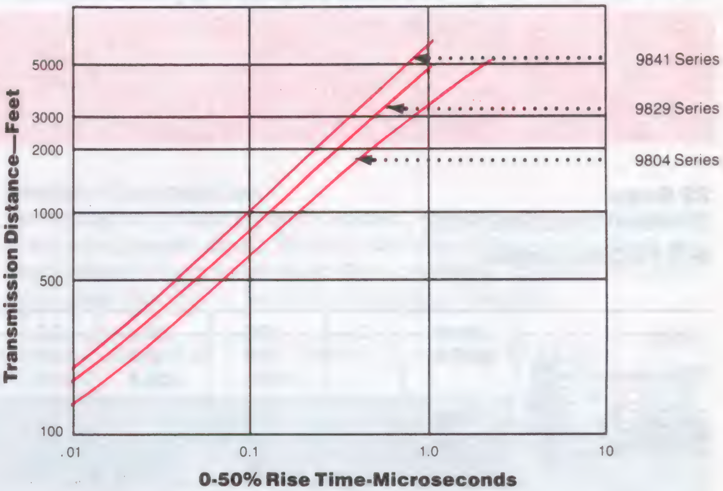
Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Color Coding	Nominal Capacitance * pF/ft.	Nominal Capacitance * pF/m	Nominal Capacitance ** pF/ft.	Nominal Capacitance ** pF/m
Spiral Shield 87% Shield Coverage	**8780†** 80C	1	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	4.8 21.7 22.4 42.4 46.3	(19x29)	.023	.58	.030	.76	.266	6.76	Black White	57	187	98	321
						Product Description: Tinned copper, PVC insulated, twisted pair, tinned copper spiral wrapped shield, chrome PVC jacket. Suggested working voltage: 450.											

†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.

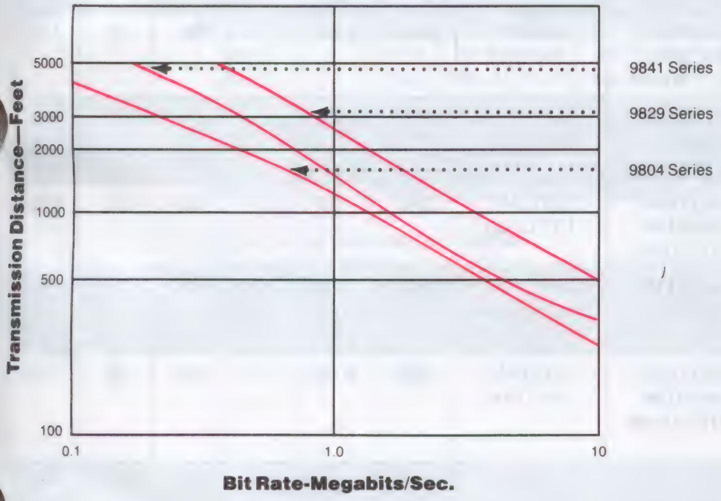
Attenuation Chart



Rise Time



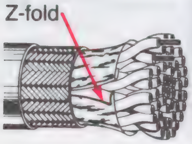
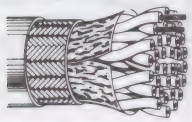
Bit Rate



Computer Cables For EIA RS-232 and Cad/Cam Applications

28 Gage
Stranded Conductors (7x36)
S-R PVC Insulated

Product Description
Tinned copper, S-R PVC insulated, twisted pairs, overall Beldfoil aluminum-polyester shield plus 65% tinned copper braid, chrome PVC jacket. Color code chart No. 3, Technical Information Section.

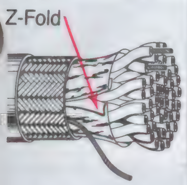
Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nominal Capacitance‡			
			ft.	m		Conductor	Shield	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
	**New 8362†**	2	100 500 1000	30.5 152.4 304.8	2.7 13.1 24.9	28 (7x36) 64.9Ω/M′ 212.9Ω/km	7.0Ω/M′ 23.0Ω/km	.210	5.33	21	69	35	115
	New 8363†	3	100 500 1000	30.5 152.4 304.8	3.5 16.0 30.5	28 (7x36) 64.9Ω/M′ 212.9Ω/km	7.0Ω/M′ 23.0Ω/km	.240	6.10	21	69	35	115
Beldfoil® 100% Shield Coverage	**New 8364†**	4	100 500 1000	30.5 152.4 304.8	3.9 18.2 36.9	28 (7x36) 64.9Ω/M′ 212.9Ω/km	5.3Ω/M′ 17.4Ω/km	.250	6.35	21	69	35	115
2464 300V 80C S-R PVC	**New 8365†**	5	100 500 1000	30.5 152.4 304.8	4.0 18.7 37.8	28 (7x36) 64.9Ω/M′ 212.9Ω/km	5.6Ω/M′ 18.4Ω/km	.260	6.60	21	69	35	115
	New 8366†	6	100 500 1000	30.5 152.4 304.8	4.4 20.7 42.7	28 (7x36) 64.9Ω/M′ 212.9Ω/km	5.3Ω/M′ 17.4Ω/km	.270	6.86	21	69	35	115
	New 8367†	7	100 500 1000	30.5 152.4 304.8	4.5 21.3 43.8	28 (7x36) 64.9Ω/M′ 212.9Ω/km	5.3Ω/M′ 17.4Ω/km	.270	6.86	21	69	35	115
	New 8368†	8	100 500 1000	30.5 152.4 304.8	5.0 23.5 48.3	28 (7x36) 64.9Ω/M′ 212.9Ω/km	5.7Ω/M′ 18.7Ω/km	.290	7.37	21	69	35	115
	New 8370†	10	100 500 1000	30.5 152.4 304.8	6.0 28.3 60.2	28 (7x36) 64.9Ω/M′ 212.9Ω/km	4.9Ω/M′ 16.1Ω/km	.330	8.38	21	69	35	115
	New 8372†	12½ 12 pr. + 1 single	100 500 1000	30.5 152.4 304.8	6.5 30.4 64.3	28 (7x36) 64.9Ω/M′ 212.9Ω/km	5.0Ω/M′ 16.4Ω/km	.340	8.64	21	69	35	115
	New 8375†	15	100 500 1000	30.5 152.4 304.8	7.6 37.7 75.5	28 (7x36) 64.9Ω/M′ 212.9Ω/km	4.2Ω/M′ 13.8Ω/km	.370	9.40	21	69	35	115
	New 8378†	18	100 500 1000	30.5 152.4 304.8	8.3 42.7 83.4	28 (7x36) 64.9Ω/M′ 212.9Ω/km	4.3Ω/M′ 14.1Ω/km	.385	9.78	21	69	35	115
	**New 8385†**	25	100 500 1000	30.5 152.4 304.8	11.8 58.0 113.1	28 (7x36) 64.9Ω/M′ 212.9Ω/km	3.5Ω/M′ 11.5Ω/km	.455	11.56	21	69	35	115

†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
‡At 1 Khz.

Computer Cables
ow Capacitance Cables for EIA RS-422 Applications

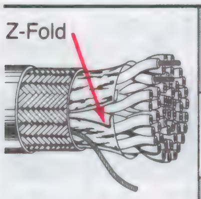
28 Gage
Stranded Conductors (7x36)
Polypropylene Insulated

Product Description
Tinned copper, polypropylene insulated, twisted pairs, overall Beldfoil aluminum-polyester shield, 28 AWG stranded tinned copper drain wire, overall tinned copper braid shield (90% coverage), chrome PVC jacket. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	
 Beldfoil® 100% Shield Coverage 2960 30V 60C	**9804**	2	100 500 1000	30.5 152.4 304.8	3.2 14.6 27.8	28 (7x36) 64.9Ω/M' 212.9Ω/km	3.87Ω/M' 12.7Ω/km	.220	5.59	100	66%	15.5	50.5	27.5	88.9	.77
	9805	3	100 500 1000	30.5 152.4 304.8	3.5 16.4 31.4	28 (7x36) 64.9Ω/M' 212.9Ω/km	4.18Ω/M' 13.7Ω/km	.230	5.84	100	66%	15.5	50.5	27.5	88.9	.77
	9806	4	100 500 1000	30.5 152.4 304.8	4.0 18.7 36.0	28 (7x36) 64.9Ω/M' 212.9Ω/km	3.26Ω/M' 10.7Ω/km	.240	6.10	100	66%	15.5	50.5	27.5	88.9	.77
	9807	5	100 500 1000	30.5 152.4 304.8	4.2 19.5 39.4	28 (7x36) 64.9Ω/M' 212.9Ω/km	3.45Ω/M' 11.3Ω/km	.250	6.35	100	66%	15.5	50.5	27.5	88.9	.77
	New 9811	6	100 500 1000	30.5 152.4 304.8	4.5 21.3 43.0	28 (7x36) 64.9Ω/M' 212.9Ω/km	3.26Ω/M' 10.7Ω/km	.265	6.73	100	66%	15.5	50.5	27.5	88.9	.77
	9808	7	100 500 1000	30.5 152.4 304.8	4.7 21.8 44.1	28 (7x36) 64.9Ω/M' 212.9Ω/km	2.90Ω/M' 9.5Ω/km	.265	6.73	100	66%	15.5	50.5	27.5	88.9	.77

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

Computer Cables Low Capacitance Cables for EIA RS-422 Applications

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv. Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m	
Z-Fold  Beldfoil® 100% Shield Coverage ЯU 2960 30V 60C	**9809**	9	100 500 1000	30.5 152.4 304.8	5.7 26.7 54.6	28 (7x36) 64.9Ω/M′ 212.9Ω/km	2.74Ω/M′ 9.0Ω/km	.300	7.62	100	66%	15.5	50.5	27.5	88.9	.77
	9810	10	100 500 1000	30.5 152.4 304.8	6.1 29.0 61.5	28 (7x36) 64.9Ω/M′ 212.9Ω/km	2.93Ω/M′ 9.6Ω/km	.320	8.13	100	66%	15.5	50.5	27.5	88.9	.77
	9812	12	100 500 1000	30.5 152.4 304.8	6.5 30.8 65.1	28 (7x36) 64.9Ω/M′ 212.9Ω/km	3.26Ω/M′ 10.7Ω/km	.330	8.38	100	66%	15.5	50.5	27.5	88.9	.77
	New 9813	13	100 500 1000	30.5 152.4 304.8	6.9 34.7 69.4	28 (7x36) 64.9Ω/M′ 212.9Ω/km	2.83Ω/M′ 9.3Ω/km	.340	8.64	100	66%	15.5	50.5	27.5	88.9	.77
	9819	18	100 500 1000	30.5 152.4 304.8	8.3 41.5 83.1	28 (7x36) 64.9Ω/M′ 212.9Ω/km	2.04Ω/M′ 6.7Ω/km	.375	9.53	100	66%	15.5	50.5	27.5	88.9	.77
	9825	25	100 500 1000	30.5 152.4 304.8	11.2 55.0 107.0	28 (7x36) 64.9Ω/M′ 212.9Ω/km	1.62Ω/M′ 5.3Ω/km	.430	10.92	100	66%	15.5	50.5	27.5	88.9	.77
	New 9814	31	100 500 1000	30.5 152.4 304.8	13.1 64.6 126.0	28 (7x36) 64.9Ω/M′ 212.9Ω/km	2.1Ω/M′ 6.9Ω/km	.475	12.07	100	66%	15.5	50.5	27.5	88.9	.77

28 Gage
Stranded Conductors (7x36)
Polypropylene Insulated

Product Description
Tinned copper, polypropylene insulated, twisted pairs, overall Beldfoil aluminum-polyester shield, 28 AWG stranded tinned copper drain wire, overall tinned copper braid shield (90% coverage), chrome PVC jacket. Color code chart No. 3, Technical Information Section.

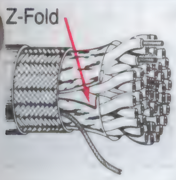
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

Datalene® insulation features are low dielectric constant and a dissipation factor for high-speed, low-distortion data handling. Physical properties include good crush resistance and light weight.

Computer Cables
Low Capacitance Cables for EIA RS-232 and EIA RS-485 Applications

28 Gage
Stranded Conductors (7x36)
Datalene® Insulated

Product Description
Tinned copper, Datalene insulated, twisted pairs, overall Beldfoil aluminum-polyester shield, 28 AWG stranded tinned copper drain wire, overall tinned copper braid shield (65% coverage), chrome PVC jacket. Color code chart No. 5, Technical Information Section.

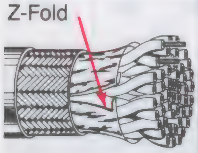
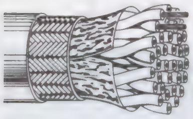
Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	
Z-Fold  Beldfoil® 100% Shield Coverage UL 2919 30V 80C	**New 8132†**	2	100 500 1000	30.5 152.4 304.8	3.4 15.8 30.2	28 (7x36) 64.9Ω/M′ 212.9Ω/km	5.07Ω/M′ 16.6Ω/km	.260	6.60	120	78%	11.0	36	20	66	.9
	New 8133†	3	100 500 1000	30.5 152.4 304.8	3.8 17.5 35.5	28 (7x36) 64.9Ω/M′ 212.9Ω/km	5.20Ω/M′ 17.1Ω/km	.270	6.86	120	78%	11.0	36	20	66	.9
	New 8134†	4	100 500 1000	30.5 152.4 304.8	4.4 20.4 41.2	28 (7x36) 64.9Ω/M′ 212.9Ω/km	4.37Ω/M′ 14.3Ω/km	.290	7.37	120	78%	11.0	36	20	66	.9
	New 8135†	5	100 500 1000	30.5 152.4 304.8	4.5 20.9 43.0	28 (7x36) 64.9Ω/M′ 212.9Ω/km	4.21Ω/M′ 13.8Ω/km	.300	7.62	120	78%	11.0	36	20	66	.9
	New 8136†	6	100 500 1000	30.5 152.4 304.8	5.1 24.0 49.3	28 (7x36) 64.9Ω/M′ 212.9Ω/km	4.35Ω/M′ 14.3Ω/km	.330	8.38	120	78%	11.0	36	20	66	.9
	New 8137†	7	100 500 1000	30.5 152.4 304.8	5.2 24.3 49.9	28 (7x36) 64.9Ω/M′ 212.9Ω/km	4.23Ω/M′ 13.9Ω/km	.330	8.38	120	78%	11.0	36	20	66	.9
	New 8138†	8	100 500 1000	30.5 152.4 304.8	5.7 27.1 57.7	28 (7x36) 64.9Ω/M′ 212.9Ω/km	3.74Ω/M′ 12.3Ω/km	.350	8.89	120	78%	11.0	36	20	66	.9
	New 8140†	10	100 500 1000	30.5 152.4 304.8	6.7 33.9 67.8	28 (7x36) 64.9Ω/M′ 212.9Ω/km	3.42Ω/M′ 11.2Ω/km	.405	10.29	120	78%	11.0	36	20	66	.9
	New 8142†	12½ 12 pair + 1 single	100 500 1000	30.5 152.4 304.8	7.3 37.7 73.5	28 (7x36) 64.9Ω/M′ 212.9Ω/km	3.07Ω/M′ 10.1Ω/km	.415	10.54	120	78%	11.0	36	20	66	.9
	New 8145†	15	100 500 1000	30.5 152.4 304.8	9.7 45.4 92.7	28 (7x36) 64.9Ω/M′ 212.9Ω/km	2.52Ω/M′ 8.3Ω/km	.465	11.81	120	78%	11.0	36	20	66	.9
	New 8148†	18	100 500 1000	30.5 152.4 304.8	10.4 51.3 99.5	28 (7x36) 64.9Ω/M′ 212.9Ω/km	2.56Ω/M′ 8.4Ω/km	.490	12.45	120	78%	11.0	36	20	66	.9
	New 8155†	25	100 500 1000	30.5 152.4 304.8	12.6 62.3 125.5	28 (7x36) 64.9Ω/M′ 212.9Ω/km	2.32Ω/M′ 7.6Ω/km	.565	14.35	120	78%	11.0	36	20	66	.9

†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

Computer Cables
For EIA RS-232 and Cad/Cam Applications

24 Gage
Stranded Conductors (7x32)
S-R PVC Insulated

Product Description
Tinned copper, S-R PVC insulated multi-paired cable with overall Beldfoil aluminum-polyester shield plus 65% tinned copper braid shield, chrome PVC jacket. Color code chart No. 3, Technical Information Section.

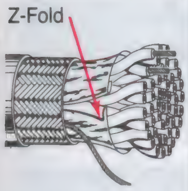
Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nominal Capacitance‡			
			ft.	m		Conductor	Shield	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
Z-Fold  Beldfoil® 100% Shield Coverage UL 2464 300V 80C S-R PVC	**New 8332**†	2	100 500 1000	30.5 152.4 304.8	3.9 17.9 34.3	24 (7x32) 24.0Ω/M' 78.7Ω/km	5.4Ω/M' 17.7Ω/km	.250	6.35	30	98	50	164
	New 8333†	3	100 500 1000	30.5 152.4 304.8	4.4 20.6 41.7	24 (7x32) 24.0Ω/M' 78.7Ω/km	7.0Ω/M' 23.0Ω/km	.275	6.98	30	98	50	164
	New 8334†	4	100 500 1000	30.5 152.4 304.8	5.0 23.4 47.3	24 (7x32) 24.0Ω/M' 78.7Ω/km	4.5Ω/M' 14.8Ω/km	.288	7.32	30	98	50	164
	New 8335†	5	100 500 1000	30.5 152.4 304.8	5.6 26.5 54.3	24 (7x32) 24.0Ω/M' 78.7Ω/km	4.6Ω/M' 15.1Ω/km	.295	7.49	30	98	50	164
	New 8336†	6	100 500 1000	30.5 152.4 304.8	6.4 30.1 61.5	24 (7x32) 24.0Ω/M' 78.7Ω/km	4.7Ω/M' 15.4Ω/km	.311	7.90	30	98	50	164
	New 8337†	7	100 500 1000	30.5 152.4 304.8	6.8 32.3 65.9	24 (7x32) 24.0Ω/M' 78.7Ω/km	4.7Ω/M' 15.4Ω/km	.311	7.90	30	98	50	164
	New 8338†	8	100 500 1000	30.5 152.4 304.8	7.5 35.7 75.0	24 (7x32) 24.0Ω/M' 78.7Ω/km	4.1Ω/M' 13.4Ω/km	.335	8.51	30	98	50	164
	New 8340†	10	100 500 1000	30.5 152.4 304.8	8.8 44.3 88.6	24 (7x32) 24.0Ω/M' 78.7Ω/km	3.5Ω/M' 11.5Ω/km	.385	9.78	30	98	50	164
	New 8342†	12½ 12 pairs + 1 single	100 500 1000	30.5 152.4 304.8	10.6 54.3 106.9	24 (7x32) 24.0Ω/M' 78.7Ω/km	3.6Ω/M' 11.8Ω/km	.405	10.29	30	98	50	164
	New 8345†	15	100 500 1000	30.5 152.4 304.8	13.3 63.3 128.7	24 (7x32) 24.0Ω/M' 78.7Ω/km	3.2Ω/M' 10.5Ω/km	.445	11.30	30	98	50	164
 Beldfoil 100% Shield Coverage UL 2464 300V 80C S-R PVC	**New 8348**†	18	100 500 1000	30.5 152.4 304.8	14.9 75.4 147.7	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.7Ω/M' 8.9Ω/km	.480	12.19	30	98	50	164
	New 8355†	25	100 500 1000	30.5 152.4 304.8	19.2 95.2 191.4	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.5Ω/M' 8.2Ω/km	.550	13.97	30	98	50	164

†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
‡At 1 Khz.

Computer Cables
Low Capacitance Cables for EIA RS-422 Applications

24 Gage
Stranded Conductors (7x32)
Polyethylene Insulated

Product Description
Tinned copper, polyethylene insulated, twisted pairs, overall Beldfoil aluminum-polyester shield, 24 AWG stranded tinned copper drain wire, overall tinned copper braid shield (90% coverage), chrome PVC jacket. Color code chart No. 3, Technical Information Section.

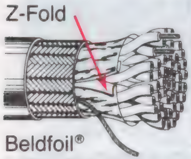
Description	Trade & U.L. Style Number	No of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m	
 Beldfoil® 100% Shield Coverage 2919 30V 80C	**9829**	2	100 500 1000	30.5 152.4 304.8	5.3 25.2 50.9	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.68Ω/M' 8.8Ω/km	.302	7.67	100	66%	15.5	50.5	27.5	88.9	2.1
	9830	3	100 500 1000	30.5 152.4 304.8	5.9 27.8 56.9	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.84Ω/M' 9.3Ω/km	.310	7.87	100	66%	15.5	50.5	27.5	88.9	2.1
	9831	4	100 500 1000	30.5 152.4 304.8	6.8 32.3 68.0	24 (7x32) 24.0Ω/M' 78.7Ω/km	3.26Ω/M' 10.7Ω/km	.330	8.38	100	66%	15.5	50.5	27.5	88.9	2.1
	9832	5	100 500 1000	30.5 152.4 304.8	7.2 34.7 73.0	24 (7x32) 24.0Ω/M' 78.7Ω/km	1.92Ω/M' 6.3Ω/km	.350	8.89	100	66%	15.5	50.5	27.5	88.9	2.1
	New **9839**	6	100 500 1000	30.5 152.4 304.8	8.7 43.8 87.6	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.35Ω/M' 7.72Ω/km	.370	9.40	100	66%	15.5	50.5	27.5	88.9	2.1
	9833	7	100 500 1000	30.5 152.4 304.8	9.0 45.4 90.2	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.07Ω/M' 6.8Ω/km	.370	9.40	100	66%	15.5	50.5	27.5	88.9	2.1
	9834	9	100 500 1000	30.5 152.4 304.8	10.9 51.6 101.1	24 (7x32) 24.0Ω/M' 78.7Ω/km	1.60Ω/M' 5.2Ω/km	.420	10.67	100	66%	15.5	50.5	27.5	88.9	2.1
	9835	10	100 500 1000	30.5 152.4 304.8	11.8 55.9 113.9	24 (7x32) 24.0Ω/M' 78.7Ω/km	1.65Ω/M' 5.4Ω/km	.450	11.43	100	66%	15.5	50.5	27.5	88.9	2.1
	9836	12	100 500 1000	30.5 152.4 304.8	13.2 65.0 127.0	24 (7x32) 24.0Ω/M' 78.7Ω/km	1.77Ω/M' 5.8Ω/km	.470	11.94	100	66%	15.5	50.5	27.5	88.9	2.1

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

Computer Cables
Low Capacitance Cables for EIA RS-422 Applications

24 Gage
Stranded Conductors (7x32)
Polyethylene Insulated

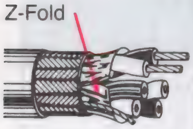
Product Description
Tinned copper, polyethylene insulated, twisted pairs, overall Beldfoil aluminum-polyester shield, 24 AWG stranded tinned copper drain wire, overall tinned copper braid shield (90% coverage), chrome PVC jacket. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m	
 Beldfoil® 100% Shield Coverage 2919 30V 80C	**9837**	18	100 500 1000	30.5 152.4 304.8	18.4 91.0 183.0	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.04Ω/M' 6.7Ω/km	.570	14.48	100	66%	15.5	50.5	27.5	88.9	2.1
	9838	25	100 500 1000	30.5 152.4 304.8	25.3 118.3 229.6	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.35Ω/M' 7.7Ω/km	.650	16.51	100	66%	15.5	50.5	27.5	88.9	2.1
	New 9840	31	100 500 1000	30.5 152.4 304.8	31.2 148.1 300.1	24 (7x32) 24.0Ω/M' 78.7Ω/km	1.54Ω/M' 5.1Ω/km	.745	18.92	100	66%	15.5	50.5	27.5	88.9	2.1

For EIA RS-485 Applications

24 Gage
Stranded Conductors (7x32)
Polyethylene Insulated

Product Description
Tinned copper, polyethylene insulated, twisted pairs, overall Beldfoil aluminum-polyester shield, 24 AWG stranded tinned copper drain wire, overall tinned copper braid shield (90% coverage), chrome PVC jacket. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m	
 Beldfoil 100% Shield Coverage 2919 30V 80C	**9841**	1	100 500 1000	30.5 152.4 304.8	4.6 21.4 43.2	24 (7x32) 24.0Ω/M' 78.7Ω/km	3.4Ω/M' 11.0Ω/km	.270	6.86	120	66%	12.8	41.7	23.0	75.65	2.5
	9842	2	100 500 1000	30.5 152.4 304.8	6.4 32.6 64.8	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.2Ω/M' 7.2Ω/km	.355	9.02	120	66%	12.8	41.7	23.0	75.65	2.5
	9843	3	100 500 1000	30.5 152.4 304.8	7.3 36.8 73.0	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.3Ω/M' 7.5Ω/km	.370	9.40	120	66%	12.8	41.7	23.0	75.65	2.5
	9844	4	100 500 1000	30.5 152.4 304.8	8.4 42.4 84.9	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.1Ω/M' 6.9Ω/km	.395	10.03	120	66%	12.8	41.7	23.0	75.65	2.5

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

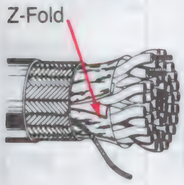
Paired
Overall Foil/Braid Shield

Datalene® insulation features are low dielectric constant and a dissipation factor for high-speed, low-distortion data handling. Physical properties include good crush resistance and light weight.

Computer Cables
Low Capacitance Cables for EIA RS-232 and EIA RS-422 Applications

24 Gage
Stranded Conductors (7x32)
Datalene® Insulated

Product Description
Tinned copper, Datalene insulated, twisted pairs, overall Beldfoil aluminum-polyester shield, 24 AWG stranded tinned copper drain wire, overall tinned copper braid shield (65% coverage), chrome PVC jacket. Color code chart No. 5, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	
 Beldfoil® 100% Shield Coverage 2919 30V 80C	**New 8102†**	2	100 500 1000	30.5 152.4 304.8	4.4 20.7 41.9	24 (7x32) 24.0Ω/M' 78.7Ω/km	4.60Ω/M' 15.1Ω/km	.290	7.37	100	78%	12.5	41	22	72.2	2.1
	New 8103†	3	100 500 1000	30.5 152.4 304.8	5.0 23.5 48.2	24 (7x32) 24.0Ω/M' 78.7Ω/km	3.80Ω/M' 12.5Ω/km	.305	7.75	100	78%	12.5	41	22	72.2	2.1
	New 8104†	4	100 500 1000	30.5 152.4 304.8	5.7 27.2 57.9	24 (7x32) 24.0Ω/M' 78.7Ω/km	4.06Ω/M' 13.3Ω/km	.330	8.38	100	78%	12.5	41	22	72.2	2.1
	New 8105†	5	100 500 1000	30.5 152.4 304.8	6.1 28.9 61.4	24 (7x32) 24.0Ω/M' 78.7Ω/km	4.22Ω/M' 13.8Ω/km	.340	8.67	100	78%	12.5	41	22	72.2	2.1
	New 8106†	6	100 500 1000	30.5 152.4 304.8	7.0 35.2 70.3	24 (7x32) 24.0Ω/M' 78.7Ω/km	3.54Ω/M' 11.6Ω/km	.370	9.40	100	78%	12.5	41	22	72.2	2.1
	New 8107†	7	100 500 1000	30.5 152.4 304.8	7.2 36.3 72.6	24 (7x32) 24.0Ω/M' 78.7Ω/km	3.54Ω/M' 11.6Ω/km	.370	9.40	100	78%	12.5	41	22	72.2	2.1
	New 8108†	8	100 500 1000	30.5 152.4 304.8	9.1 43.3 84.6	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.70Ω/M' 8.8Ω/km	.410	10.41	100	78%	12.5	41	22	72.2	2.1
	New 8110†	10	100 500 1000	30.5 152.4 304.8	10.8 53.5 103.9	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.40Ω/M' 7.9Ω/km	.460	11.68	100	78%	12.5	41	22	72.2	2.1
	New 8112†	12½ 12 pr. + 1 single	100 500 1000	30.5 152.4 304.8	11.9 58.9 114.7	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.40Ω/M' 7.9Ω/km	.480	12.19	100	78%	12.5	41	22	72.2	2.1
	New 8115†	15	100 500 1000	30.5 152.4 304.8	14.1 69.8 140.5	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.55Ω/M' 8.4Ω/km	.540	13.72	100	78%	12.5	41	22	72.2	2.1
	New 8118†	18	100 500 1000	30.5 152.4 304.8	16.1 79.6 160.2	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.11Ω/M' 6.9Ω/km	.570	14.48	100	78%	12.5	41	22	72.2	2.1
	New 8125†	25	100 500 1000	30.5 152.4 304.8	22.4 104.0 200.9	24 (7x32) 24.0Ω/M' 78.7Ω/km	2.02Ω/M' 6.6Ω/km	.650	16.51	100	78%	12.5	41	22	72.2	2.1

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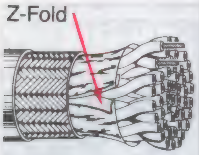
†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

Computer Cables For EIA RS-232 and Cad/Cam Applications

22 Gage
Stranded Conductors (7x30)
S-R PVC Insulated

Product Description
Tinned copper, S-R PVC insulated, twisted pairs, overall Beldfoil aluminum-polyester shield plus 65% tinned copper braid shield, chrome PVC jacket. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nominal Capacitance‡			
			ft.	m		Conductor	Shield	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil® 100% Shield Coverage 2464 300V 80C S-R PVC	**New 8302†**	2	100 500 1000	30.5 152.4 304.8	4.4 20.3 41.2	22 (7x30) 15.0Ω/M' 49.2Ω/km	5.7Ω/M' 18.7Ω/km	.260	6.60	40	131	72	236
	New 8303†	3	100 500 1000	30.5 152.4 304.8	5.4 25.7 52.7	22 (7x30) 15.0Ω/M' 49.2Ω/km	6.2Ω/M' 20.3Ω/km	.296	7.52	35	115	63	207
	New 8304†	4	100 500 1000	30.5 152.4 304.8	6.5 30.4 65.2	22 (7x30) 15.0Ω/M' 49.2Ω/km	4.9Ω/M' 16.1Ω/km	.320	8.13	35	115	63	207
	New 8305†	5	100 500 1000	30.5 152.4 304.8	7.0 33.5 70.7	22 (7x30) 15.0Ω/M' 49.2Ω/km	4.8Ω/M' 15.7Ω/km	.322	8.18	35	115	63	207
	New 8306†	6	100 500 1000	30.5 152.4 304.8	7.9 38.0 76.6	22 (7x30) 15.0Ω/M' 49.2Ω/km	5.0Ω/M' 16.4Ω/km	.348	8.84	35	115	63	207
	New 8307†	7	100 500 1000	30.5 152.4 304.8	8.4 40.6 84.7	22 (7x30) 15.0Ω/M' 49.2Ω/km	5.0Ω/M' 16.4Ω/km	.348	8.84	35	115	63	207
	New 8308†	8	100 500 1000	30.5 152.4 304.8	9.9 50.0 100.0	22 (7x30) 15.0Ω/M' 49.2Ω/km	4.4Ω/M' 14.4Ω/km	.384	9.75	35	115	63	207
 Beldfoil 100% Shield Coverage 2464 300V 80C S-R PVC	**New 8310†**	10	100 500 1000	30.5 152.4 304.8	12.1 61.2 124.4	22 (7x30) 15.0Ω/M' 49.2Ω/km	4.1Ω/M' 13.4Ω/km	.440	11.18	35	115	63	207
	New 8312†	12½ 12 pr. + 1 single	100 500 1000	30.5 152.4 304.8	13.6 71.2 139.5	22 (7x30) 15.0Ω/M' 49.2Ω/km	4.2Ω/M' 13.8Ω/km	.455	11.56	35	115	63	207
	New 8315†	15	100 500 1000	30.5 152.4 304.8	16.2 79.9 156.8	22 (7x30) 15.0Ω/M' 49.2Ω/km	3.8Ω/M' 12.5Ω/km	.502	12.75	35	115	63	207
	New 8318†	18	100 500 1000	30.5 152.4 304.8	19.2 95.3 191.6	22 (7x30) 15.0Ω/M' 49.2Ω/km	3.0Ω/M' 9.8Ω/km	.535	13.59	35	115	63	207
	New 8325†	25	100 500 1000	30.5 152.4 304.8	23.5 120.8 234.6	22 (7x30) 15.0Ω/M' 49.2Ω/km	2.9Ω/M' 9.5Ω/km	.620	15.75	35	115	63	207

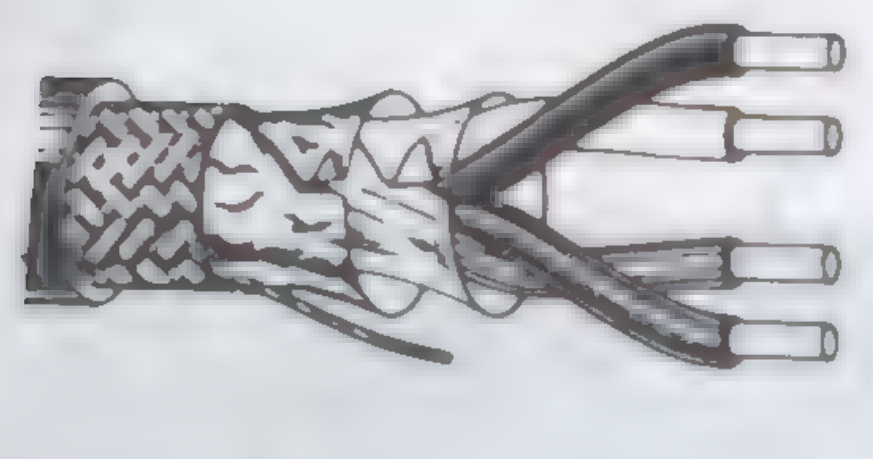
†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
‡At 1 Khz.

Paired
Overall Foil/Braid Shield

Computer Cables

22 Gage
Solid Conductors

Polyethylene Insulated

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Nominal D.C.R. Conductor	Nominal D.C.R. Shield	Nominal O.D. Inch	Nominal O.D. mm	Nom. Imp. Ω	Nom. Vel. of Prop.	* pF/ft.	* pF/m	** pF/ft.	** pF/m	††6 dbv Length Limit in Thnds. of ft.
 Beldfoil® 100% Shield Coverage	**9855†** UL 2582 150V 60C	2	100 250 U-500 500 1000	30.5 76.2 U-152.4 152.4 304.8	5.0 12.4 21.6 23.3 47.8	2 Pair 22 (Solid) .026 16.5Ω/M′ 54.1Ω/km	Beldfoil® with solid tinned copper drain wire & 58% tinned copper braid 4.2Ω/M′ 13.8Ω/km 100% shield coverage	.315	8.00	100	66%	15.5	50.9	27.5	90.2	3.0
								Product Description: Tinned copper, polyethylene insulated, twisted pairs, Beldfoil aluminum-polyester shield, 22 AWG solid tinned copper drain wire, tinned copper braid shield (58% coverage), black PVC jacket. Color code: Red/Blue, Black/Yellow. **For Plenum version, see 89855 on page 133.**								
	9696 30V 80C	2	100 500 U-500 1000	30.5 76.2 U-76.2 304.8	4.6 21.6 20.6 44.3	2 Pair 22 (Solid) .026 16.5Ω/M′ 54.1Ω/km	Beldfoil with solid tinned copper drain wire & 58% tinned copper braid 5.0Ω/M′ 16.4Ω/km 100% shield coverage	.296	7.52	100	66%	.16	52.5	27.5	90.2	2.9
								Product Description: Bare copper, polyethylene insulated, twisted pairs, Beldfoil aluminum-polyester shield, 22 AWG solid tinned copper drain wire, tinned copper braid shield (58% coverage), black PVC jacket. Color code: Blue/White with Blue Stripe, Orange/White with Orange Stripe. **For Plenum version, see 89696 on page 133.**								

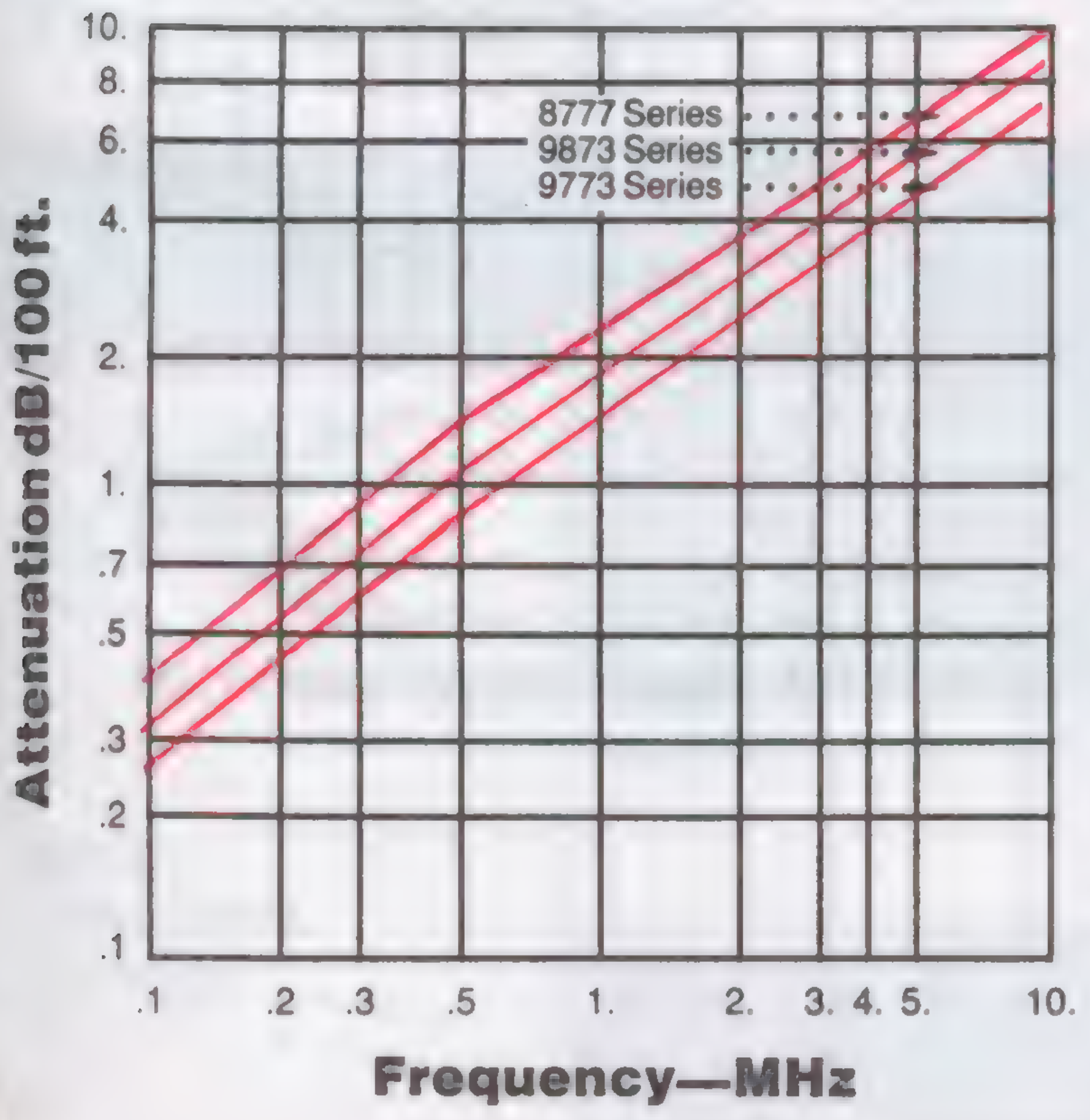
†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

Paired
Individually Shielded

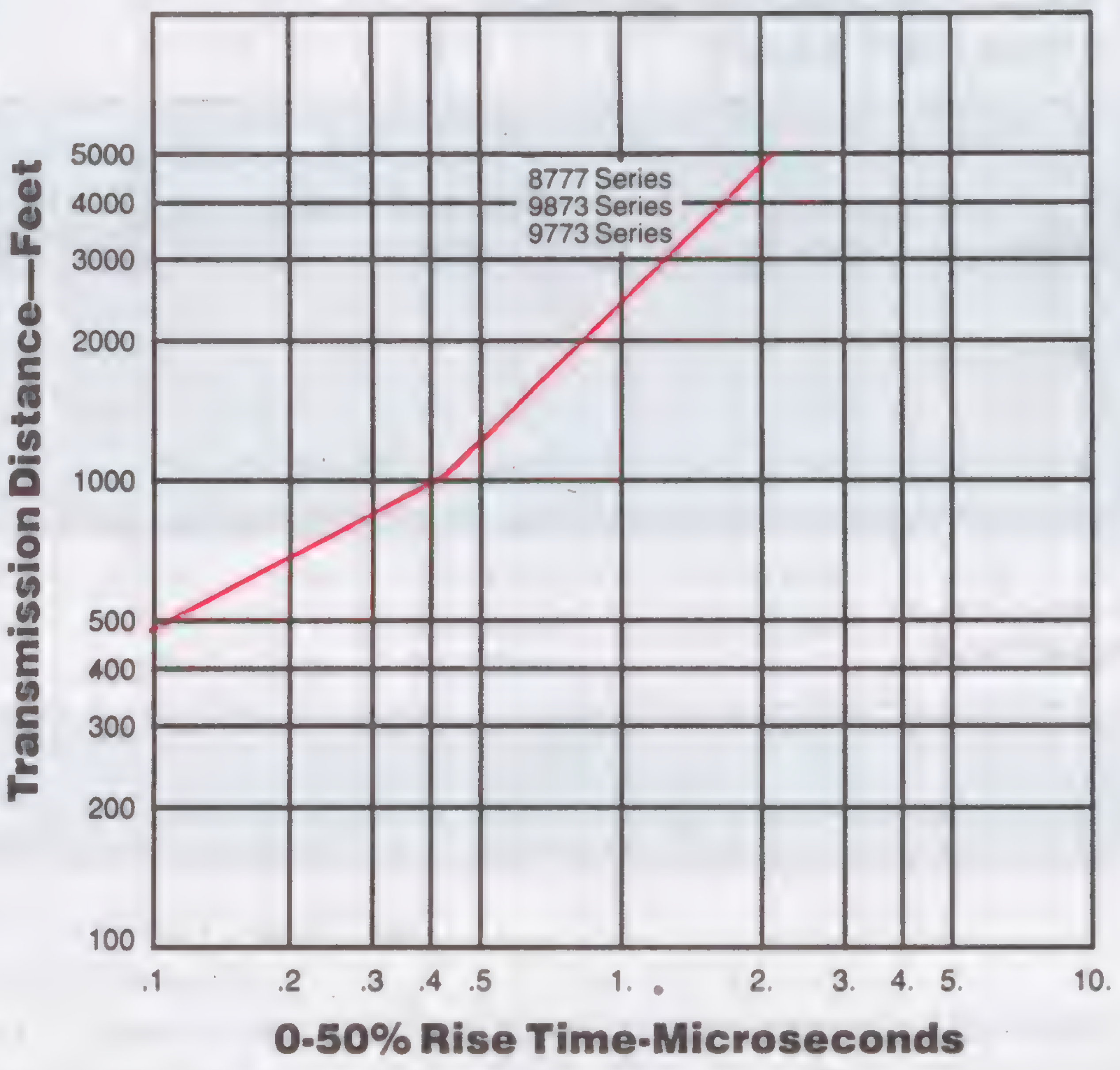
Insulation resistance between shields: 100 megohms/M′ nom. Capacitance between adjacent shields: 115 pF/ft. nom. Voltage breakdown between adjacent shields: 1500 volts nom. Working voltage between adjacent shields: 50 volts max.

Recommended for audio, pulse and radio frequency applications requiring superior circuit isolation.

Attenuation Chart

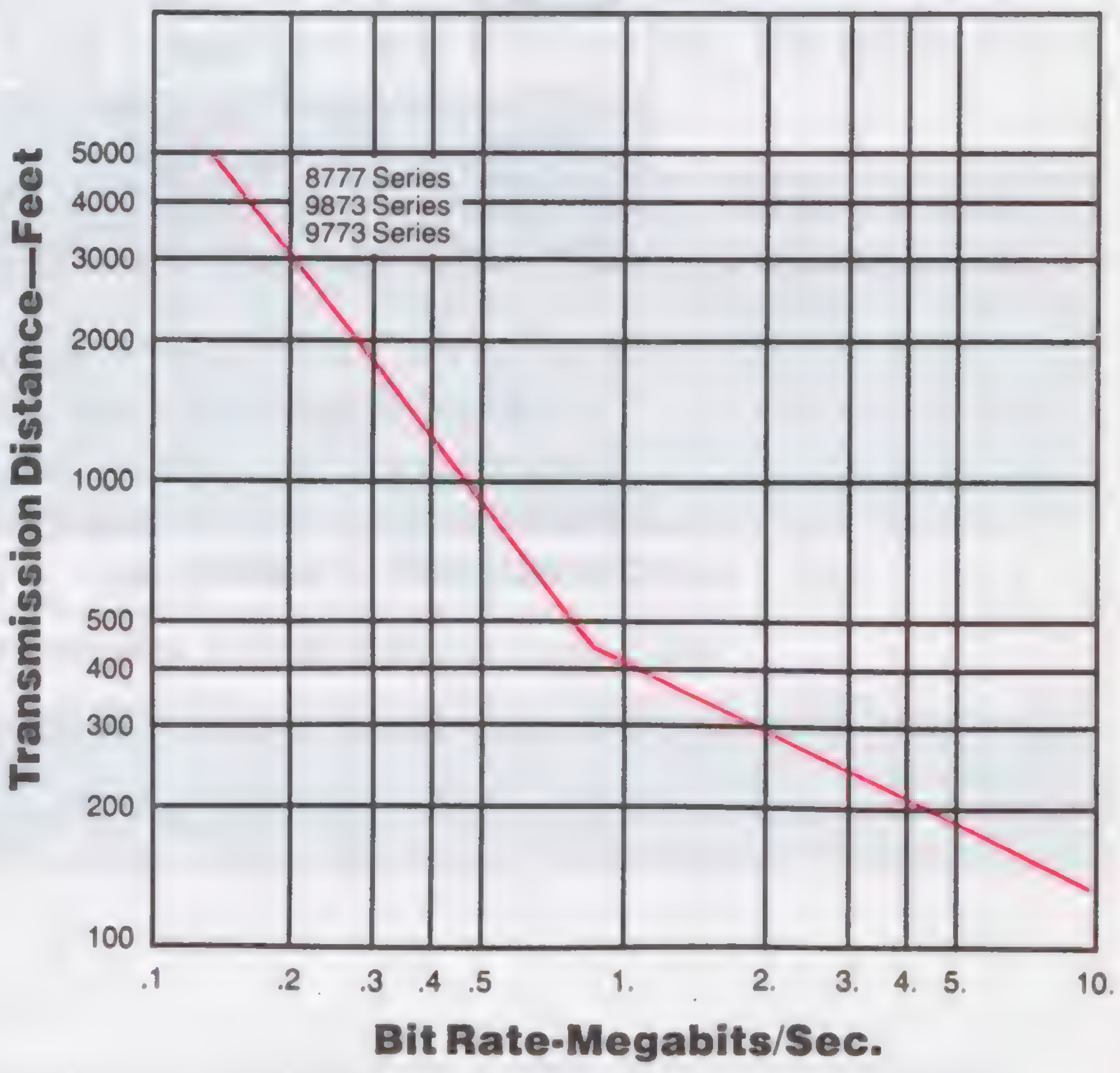


Rise Time



Cables are terminated in their characteristic impedance. Signal source electrical characteristics: 50 ohms and 10% to 90% rise time less than 5 nanoseconds.

Bit Rate



Charts assume 5% peak-to-peak time jitter as determined by eye pattern measurements of pseudorandom NRZ code.

Paired
Individually Shielded

Computer Cables

25 Gage
Stranded Conductors (7x33)

Polyethylene Insulated

Product Description

Tinned copper, polyethylene insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 22 AWG stranded tinned copper drain wire. Individual mylar wrap over each shielded pair, overall PVC jacket. Individual pairs color coded Clear, Blue. Shields color coded Blue, Red, Green.

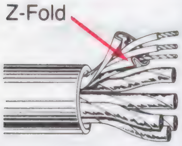
Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	
Shorting Fold	**9863** ЯU 2094 60C 300V	3	100 500 1000	30.5 152.4 304.8	8.5 39.4 80.8	25 (7x33) .021 31.8Ω/M' 104.3Ω/km	Beldfoil with stranded tinned copper drain wire over each pair 12Ω/M' 39.4Ω/km 100% shield coverage	.430	10.92	124	66%	12.2	40.0	22.3	73.2	1.9

24 Gage
Stranded Conductors (7x32)

Polypropylene Insulated

Product Description

Tinned copper, polypropylene insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 24 AWG stranded tinned copper drain wire, overall chrome PVC jacket. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	
Z-Fold  Beldfoil® 100% Shield Coverage ЯU 2919 30V 80C	**New 9990†**	3	100 500 1000	30.5 152.4 304.8	3.8 17.6 33.7	24 (7x32) 24.0Ω/M' 78.7Ω/km	18.0Ω/M' 59.1Ω/km	.248	6.30	60	66%	25	82	47	154	1.25
	New 9991†	6	100 500 1000	30.5 152.4 304.8	6.4 30.3 64.1	24 (7x32) 24.0Ω/M' 78.7Ω/km	18.0Ω/M' 59.1Ω/km	.327	8.31	60	66%	25	82	47	154	1.25
	New 9992†	9	100 500 1000	30.5 152.4 304.8	8.6 43.4 86.2	24 (7x32) 24.0Ω/M' 78.7Ω/km	18.0Ω/M' 59.1Ω/km	.368	9.35	60	66%	25	82	47	154	1.25
	New 9993†	12	100 500 1000	30.5 152.4 304.8	11.4 54.1 106.1	24 (7x32) 24.0Ω/M' 78.7Ω/km	18.0Ω/M' 59.1Ω/km	.413	10.5	60	66%	25	82	47	154	1.25
	New 9994†	18	100 500 1000	30.5 152.4 304.8	17.1 84.7 171.4	24 (7x32) 24.0Ω/M' 78.7Ω/km	18.0Ω/M' 59.1Ω/km	.520	13.2	60	66%	25	82	47	154	1.25
	New 9995†	25	100 500 1000	30.5 152.4 304.8	22.8 117.2 227.4	24 (7x32) 24.0Ω/M' 78.7Ω/km	18.0Ω/M' 59.1Ω/km	.614	15.6	60	66%	25	82	47	154	1.25

†Passes the VW-1 Vertical Wire Flame Test.

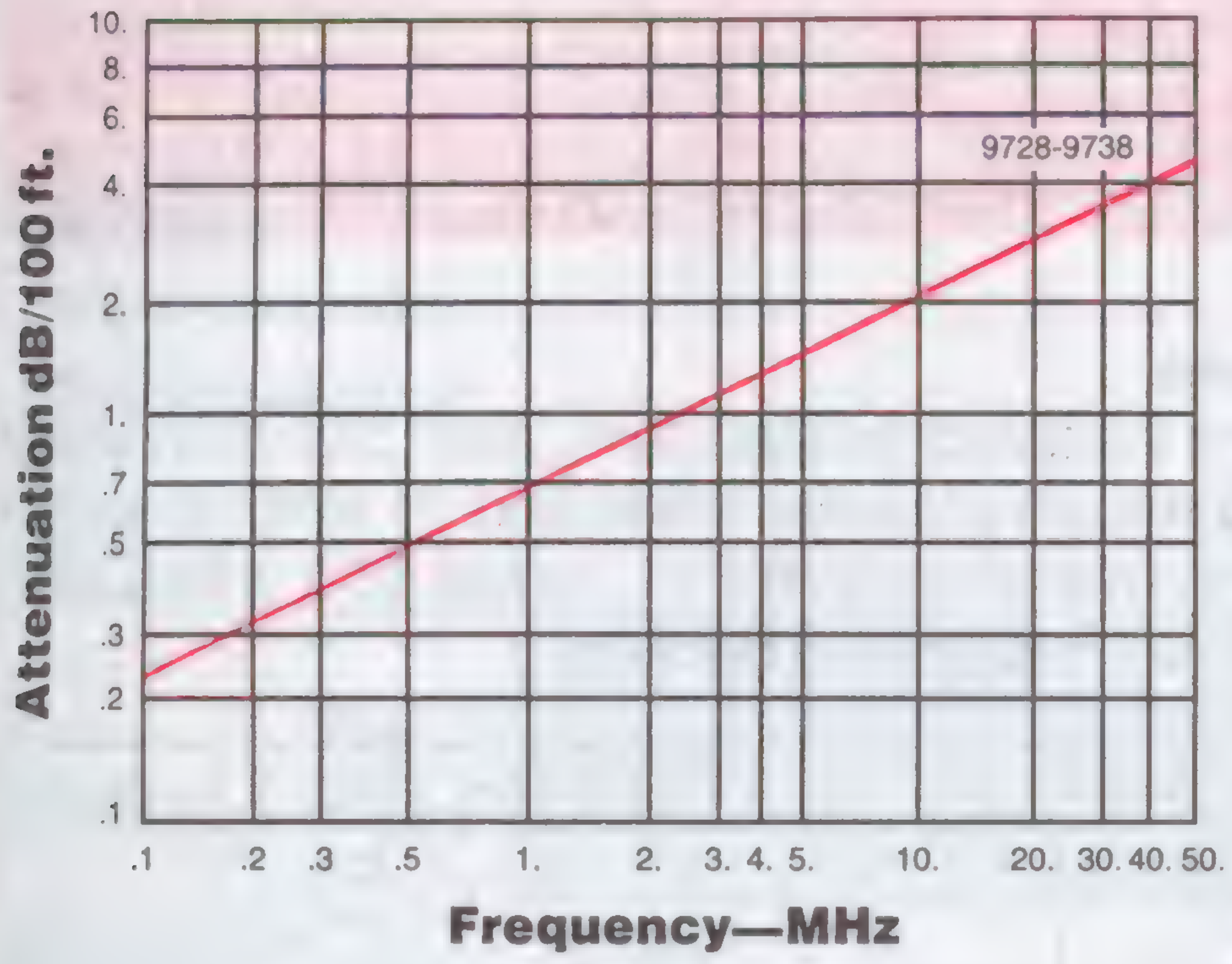
*Capacitance between conductors.

**Capacitance between 1 conductor and other conductors connected to shield.

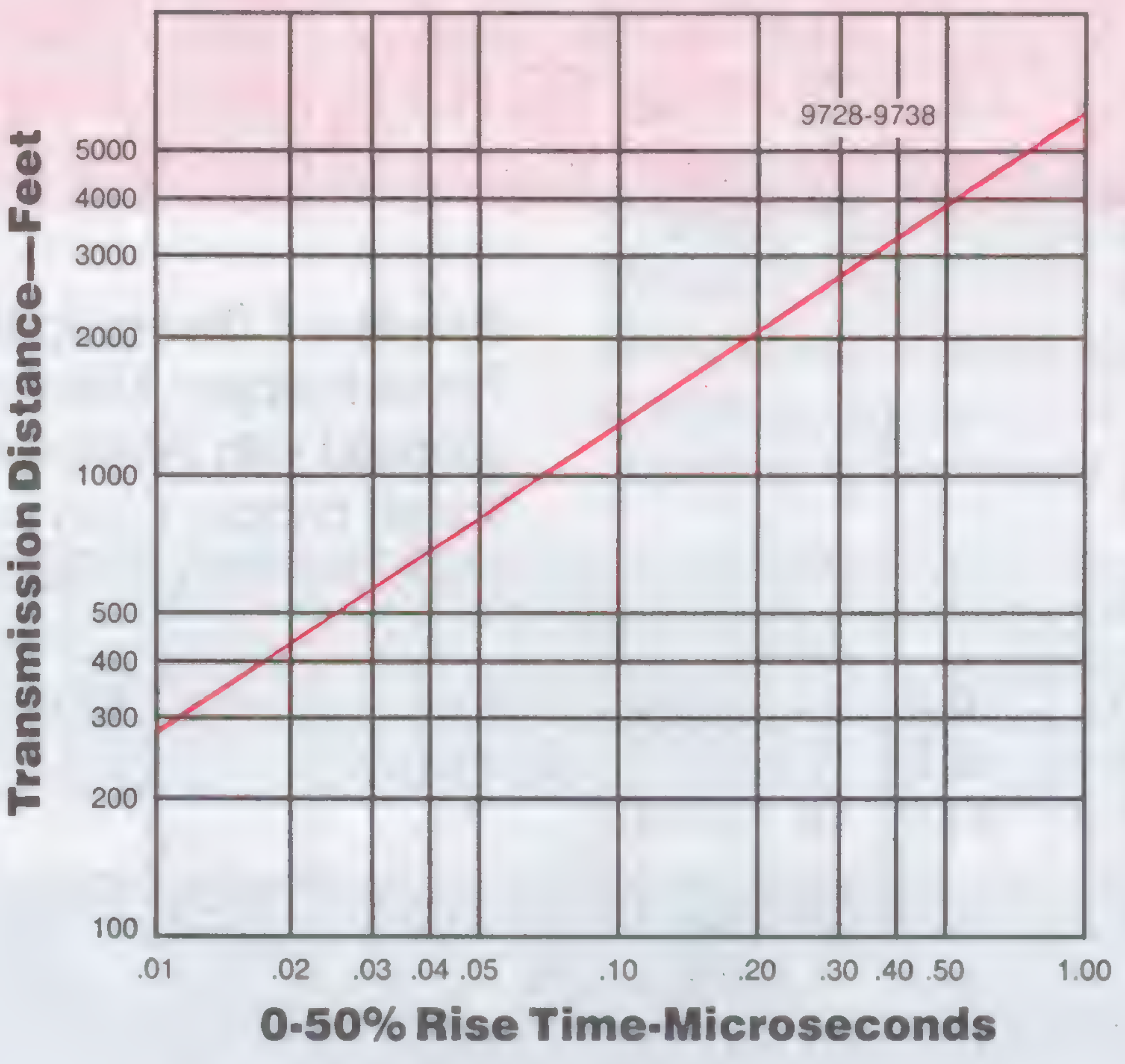
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

Datalene Insulated Cables

Attenuation Chart

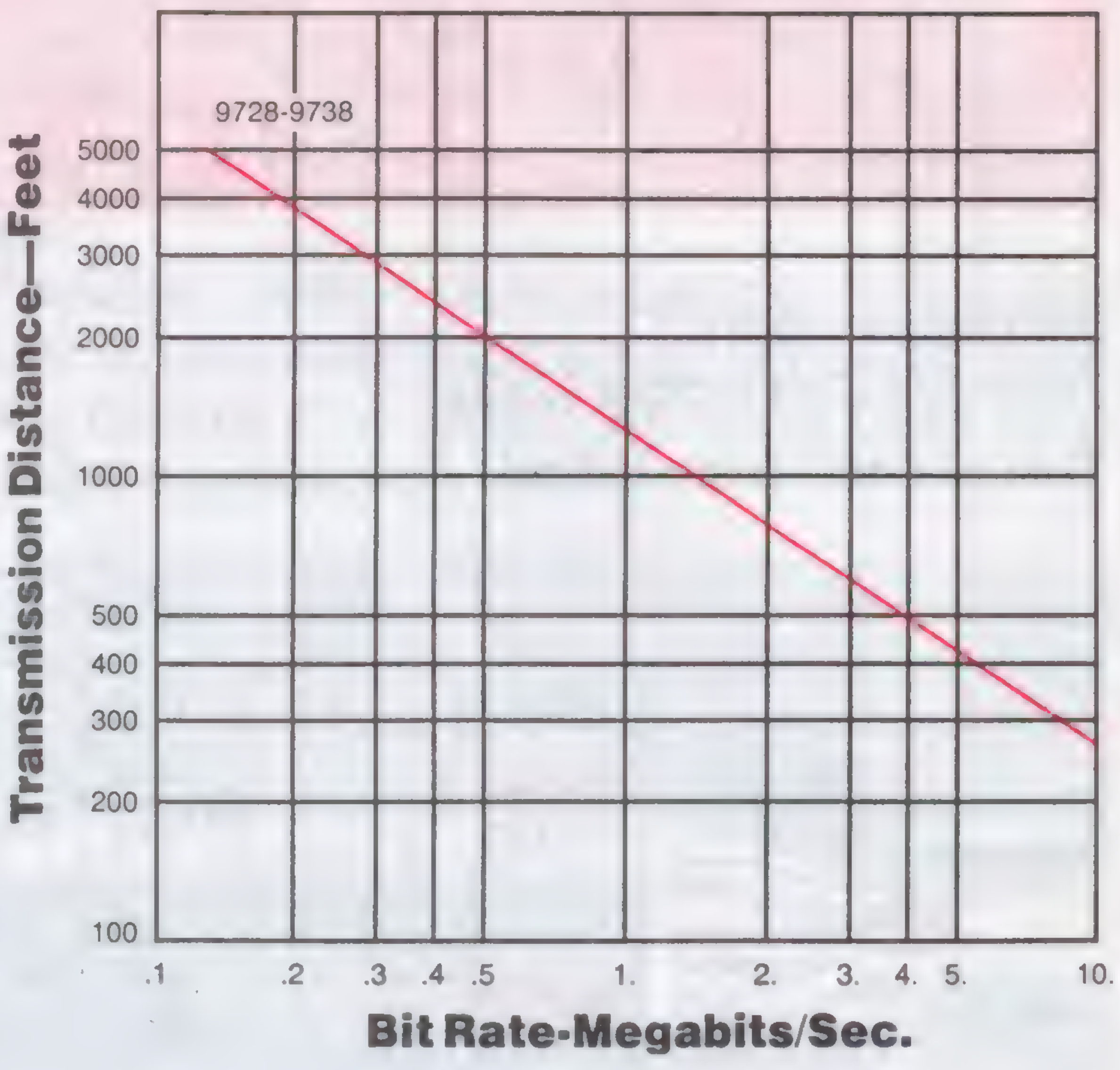


Rise Time



Cables are terminated in their characteristic impedance. Signal source electrical characteristics: 50 ohms and 10% to 90% rise time less than 5 nanoseconds.

Bit Rate



Charts assume 5% peak-to-peak time jitter as determined by eye pattern measurements of pseudorandom NRZ code.

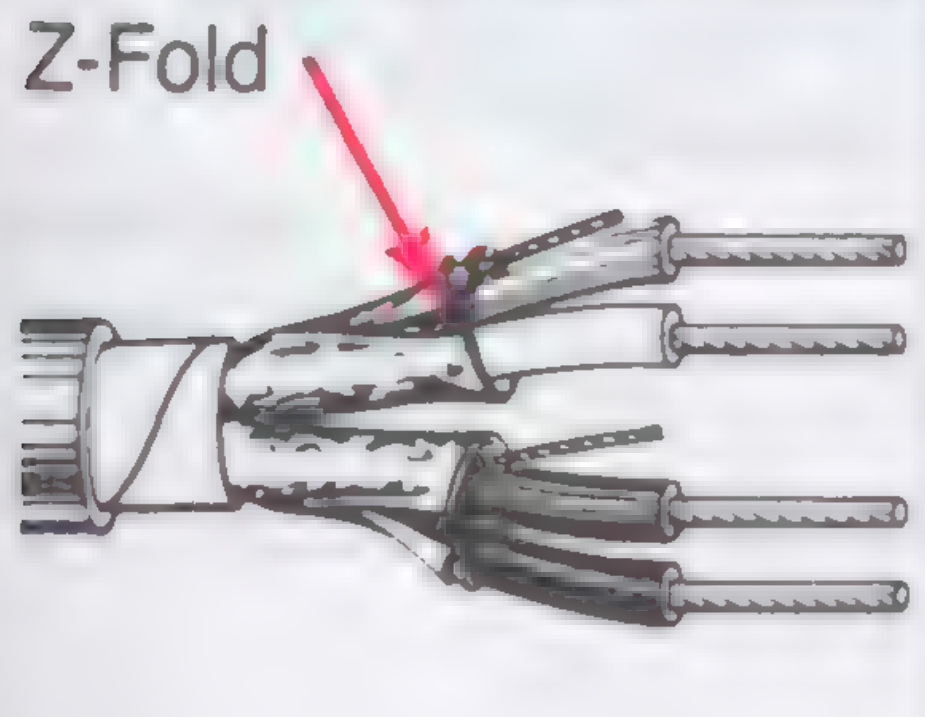
Paired
Individually Shielded

Datalene® insulation features are low dielectric constant and a dissipation factor for high-speed, low-distortion data handling. Physical properties include good crush resistance and light weight.

Computer Cables For EIA RS-422 Applications

24 Gage
Stranded Conductors (7x32)
Datalene® Insulated

Product Description
Tinned copper, Datalene insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 24 AWG stranded tinned copper drain wire, overall chrome PVC jacket. 300 volts. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	
Z-Fold 	**9729†**	2	100 500 1000	30.5 152.4 304.8	4.6 21.6 46.9	24 (7x32) 24.0Ω/M' 78.7Ω/km	Beldfoil with 24 AWG stranded tinned copper drain wire 18.0Ω/M' 59.1Ω/km	.335	8.51	100	78%	12.5	41.0	23.2	76.1	2.1
								For Plenum version, see 89729 on page 129.								
Beldfoil® 100% Shield Coverage	**9730†**	3	100 500 1000	30.5 152.4 304.8	5.2 25.1 54.3	24 (7x32) 24.0Ω/M' 78.7Ω/km	18.0Ω/M' 59.1Ω/km	.345	8.76	100	78%	12.5	41.0	23.2	76.1	2.1
								For Plenum version, see 89730 on page 129.								
2493 60C	**9728†**	4	100 500 1000	30.5 152.4 304.8	8.5 33.6 67.3	24 (7x32) 24.0Ω/M' 78.7Ω/km	18.0Ω/M' 59.1Ω/km	.404	10.26	100	78%	12.5	41.0	23.2	76.1	2.1
								For Plenum version, see 89728 on page 129.								

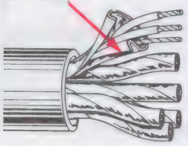
†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

Datalene® insulation features are low dielectric constant and a dissipation factor for high-speed, low-distortion data handling. Physical properties include good crush resistance and light weight.

Computer Cables For EIA RS-422 Applications

24 Gage (cont'd.)
Stranded Conductors (7x32)
Datalene® insulated

Product Description
Tinned copper, Datalene insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 24 AWG stranded tinned copper drain wire, overall chrome PVC jacket. 300 volts. Color code chart No. 3, Technical Information Section.

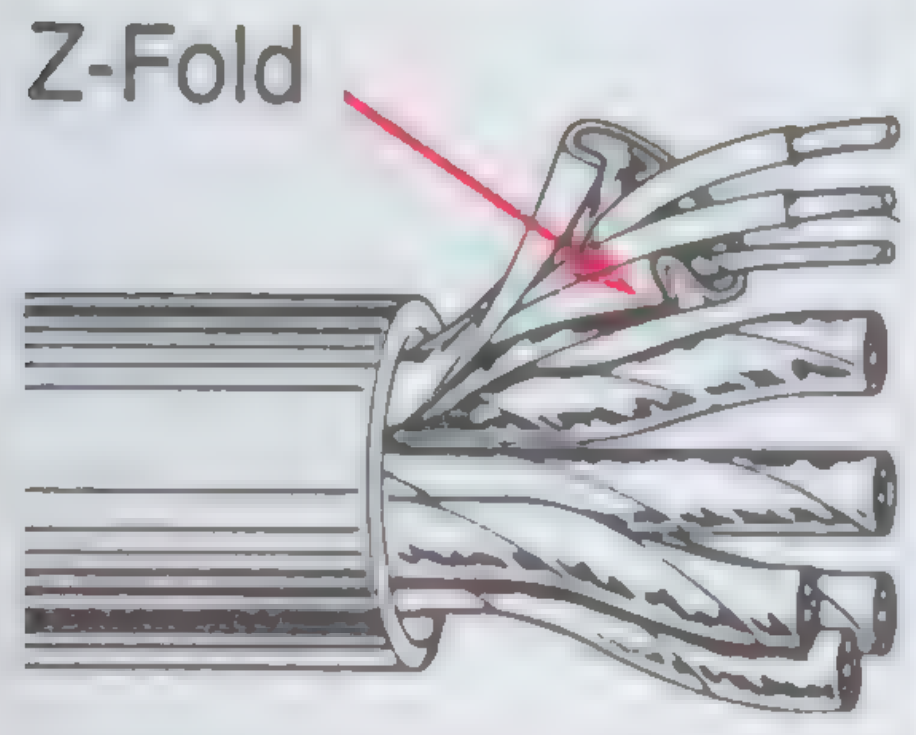
Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	
Z-Fold  Beldfoil® 100% Shield Coverage	**9731†** ЯU 2493 60C	6	100 500 1000	30.5 152.4 304.8	10.0 48.9 96.5	24 (7x32) 24Ω/M' 78.7Ω/km	18Ω/M' 59.1Ω/km	.476	12.09	100	78%	12.5	41.0	23.2	76.1	2.1
	9732† ЯU 2493 60C	9	100 500 1000	30.5 152.4 304.8	14.0 70.7 142.4	24 (7x32) 24Ω/M' 78.7Ω/km	18Ω/M' 59.1Ω/km	.570	14.48	100	78%	12.5	41.0	23.2	76.1	2.1
	9733† ЯU 2493 60C	11	100 500 1000	30.5 152.4 304.8	17.9 81.5 156.0	24 (7x32) 24Ω/M' 78.7Ω/km	18Ω/M' 59.1Ω/km	.610	15.49	100	78%	12.5	41.0	23.2	76.1	2.1
	9734† ЯU 2493 60C	12	100 500 1000	30.5 152.4 304.8	18.5 86.9 166.7	24 (7x32) 24Ω/M' 78.7Ω/km	18Ω/M' 59.1Ω/km	.630	16.00	100	78%	12.5	41.0	23.2	76.1	2.1
	9735† ЯU 2493 60C	15	100 500 1000	30.5 152.4 304.8	22.1 102.6 209.2	24 (7x32) 24Ω/M' 78.7Ω/km	18Ω/M' 59.1Ω/km	.700	17.78	100	78%	12.5	41.0	23.2	76.1	2.1
	9736† ЯU 2493 60C	17	100 500 1000	30.5 152.4 304.8	23.8 111.7 226.4	24 (7x32) 24Ω/M' 78.7Ω/km	18Ω/M' 59.1Ω/km	.730	18.54	100	78%	12.5	41.0	23.2	76.1	2.1
	9737† ЯU 2493 60C	19	100 500 1000	30.5 152.4 304.8	25.1 118.0 240.0	24 (7x32) 24Ω/M' 78.7Ω/km	18Ω/M' 59.1Ω/km	.750	19.05	100	78%	12.5	41.0	23.2	76.1	2.1
	9738† ЯU 2490 60C	27	100 500 1000	30.5 152.4 304.8	36.5 173.2 354.5	24 (7x32) 24Ω/M' 78.7Ω/km	18Ω/M' 59.1Ω/km	.875	22.23	100	78%	12.5	41.0	23.2	76.1	2.1

†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

Audio, Control and Computer Cables

22 Gage
Solid Conductors
PVC Insulated

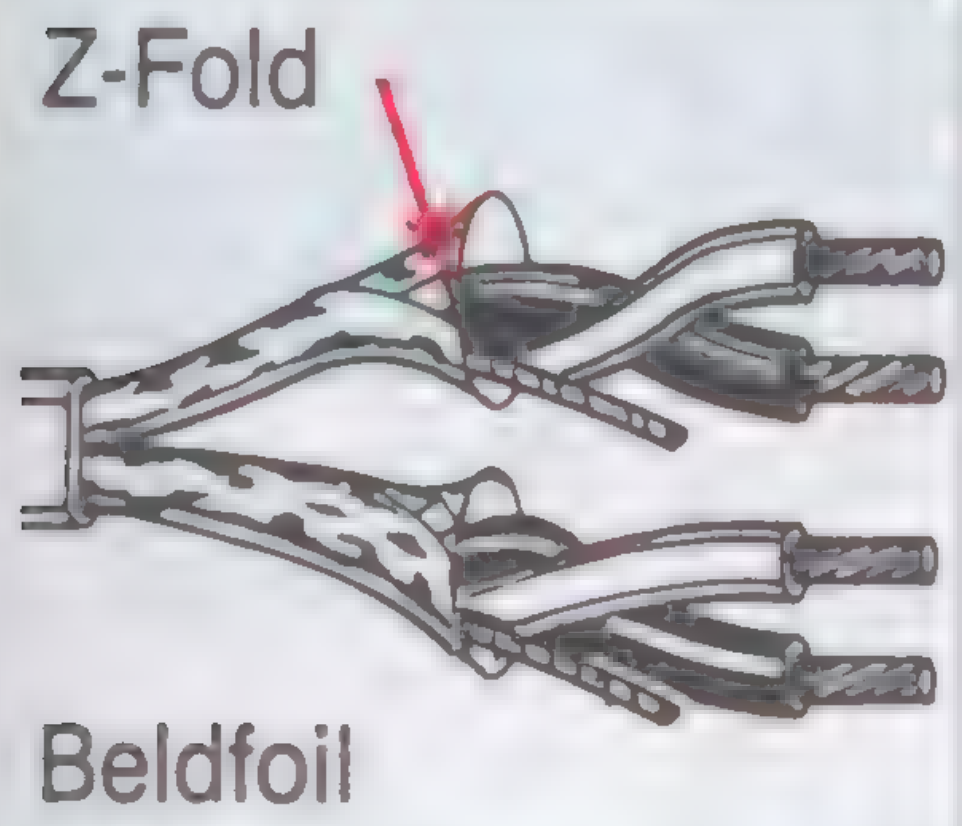
Product Description
Tinned copper, PVC insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 22 AWG solid tinned copper drain wire, overall chrome PVC jacket. 300 volts. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance‡			
			ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
Z-Fold  Beldfoil® 100% Shield Coverage UL 2464 300V 80C	**8767†**	3	100 U-500 500 1000	30.5 U-152.4 152.4 304.8	5.1 23.4 24.1 48.8	.013	.33	.037	.94	.279	7.09	40	131	77	252
	8768†	6	100 500 1000	30.5 152.4 304.8	9.0 44.5 89.1	.013	.33	.037	.94	.379	9.63	40	131	77	252
	8764†	9	100 500 1000	30.5 152.4 304.8	13.3 65.5 128.7	.013	.33	.040	1.02	.425	10.80	40	131	77	252
	8765†	11	100 500 1000	30.5 152.4 304.8	15.2 74.4 145.7	.013	.33	.040	1.02	.470	11.94	40	131	77	252
	8766†	15	100 500 1000	30.5 152.4 304.8	19.7 97.2 190.4	.013	.33	.045	1.14	.525	13.34	40	131	77	252

Computer Cables

22 Gage
Stranded Conductors (7x30)
S-R PVC Insulated

Product Description
Tinned copper, S-R PVC insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 22 AWG stranded tinned copper drain wire. Shielded pairs parallel under pale fawn beige PVC jacket. Color code: Black/White, Black/Yellow.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance‡				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	
Z-Fold  Beldfoil 100% Shield Coverage	**9406†** UL 2464 300V 80C	2	100 500 U-500 U-1000 1000	30.5 152.4 U-152.4 U-304.8 304.8	3.7 17.2 16.5 31.9 32.9	22 (7x30) 15Ω/M′ 49.2Ω/km	11.3Ω/M′ 37.0Ω/km	.175 x .280	4.45 x 7.11	—	—	50	164	95	312	—

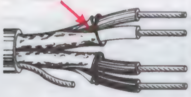
†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
‡At 1 Khz.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

Computer Cables

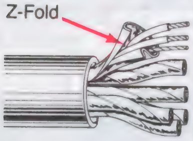
22 Gage
Stranded Conductors (7x30)

Polypropylene Insulated

Product Description
Tinned copper, polypropylene insulated, black and red under a Beldfoil aluminum-polyester shield, green and white under a Beldfoil aluminum-polyester shield, 24 AWG stranded tinned copper common drain wire, chrome PVC jacket, pairs cabled on common axis to reduce diameter. ⊖ Color code: Red, Black, Green, White. Suggested working voltage: 400.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	
 Beldfoil® 100% Shield Coverage	**8723** 80C	2	100 U-500 500 U-1000 1000 5000	30.5 U-152.4 152.4 U-304.8 304.8 1524.0	2.4 10.0 10.8 21.6 21.7 107.8	22 (7x30) 15Ω/M′ 49.2Ω/km	16.6Ω/M′ 54.5Ω/km	.165	4.19	45	66%	35	115	62	203	1.5
								For Plenum version, see 88723 on page 130.								

Product Description
Tinned copper, polypropylene insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 22 AWG stranded tinned copper drain wire, overall chrome PVC jacket. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	
 Beldfoil 100% Shield Coverage 2919 30V 80C **See Attenuation, Rise Time and Bit Rate data for this series on page 63.**	**8777†**	3	100 U-250 250 U-500 500 1000 5000	30.5 U-76.2 76.2 U-152.4 152.4 304.8 1524.0	4.7 11.0 11.7 21.0 21.8 45.1 217.4	22 (7x30) 15Ω/M′ 49.2Ω/km	11.3Ω/M′ 37.1Ω/km	.273	6.93	50	66%	30	98	55	180	1.7
								For Plenum Version, see 88777 on page 130.								
	8778†	6	100 250 500 1000	30.5 76.2 152.4 304.8	10.3 23.6 48.0 93.9	22 (7x30) 15Ω/M′ 49.2Ω/km	11.3Ω/M′ 37.1Ω/km	.368	9.35	50	66%	30	98	55	180	1.7
								For Plenum Version, see 88778 on page 130.								
	8774†	9	100 250 500 1000	30.5 76.2 152.4 304.8	13.4 30.6 65.1 128.2	22 (7x30) 15Ω/M′ 49.2Ω/km	11.3Ω/M′ 37.1Ω/km	.413	10.50	50	66%	30	98	55	180	1.7
	8775†	11	100 250 500 1000	30.5 76.2 152.4 304.8	14.9 35.4 74.2 144.3	22 (7x30) 15Ω/M′ 49.2Ω/km	11.3Ω/M′ 37.1Ω/km	.458	11.63	50	66%	30	98	55	180	1.7
	9768†	12	100 250 500 1000	30.5 76.2 152.4 304.8	15.7 33.2 77.8 152.7	22 (7x30) 15Ω/M′ 49.2Ω/km	11.3Ω/M′ 37.1Ω/km	.458	11.63	50	66%	30	98	55	180	1.7
	8776†	15	100 250 500 1000	30.5 76.2 152.4 304.8	20.9 52.2 102.4 205.8	22 (7x30) 15Ω/M′ 49.2Ω/km	11.3Ω/M′ 37.1Ω/km	.554	14.07	50	66%	30	98	55	180	1.7
	9769†	17	100 250 500 1000	30.5 76.2 152.4 304.8	25.0 58.0 118.0 228.8	22 (7x30) 15Ω/M′ 49.2Ω/km	11.3Ω/M′ 37.1Ω/km	.585	14.86	50	66%	30	98	55	180	1.7
	8769†	19	100 250 500 1000	30.5 76.2 152.4 304.8	26.7 61.9 127.2 247.4	22 (7x30) 15Ω/M′ 49.2Ω/km	11.3Ω/M′ 37.1Ω/km	.599	15.21	50	66%	30	98	55	180	1.7
	8773†	27	100 250 ◆ 500 ◆ 1000 ◆	30.5 76.2 152.4 304.8	35.8 87.2 175.5 344.9	22 (7x30) 15Ω/M′ 49.2Ω/km	11.3Ω/M′ 37.1Ω/km	.709	18.01	50	66%	30	98	55	180	1.7
	9767†	37	100 250 ◆ 500 ◆ 1000 ◆	30.5 76.2 152.4 304.8	48.2 112.4 228.8 496.0	22 (7x30) 15Ω/M′ 49.2Ω/km	11.3Ω/M′ 37.1Ω/km	.840	21.33	50	66%	30	98	55	180	1.7

†Passes the VW-1 Vertical Wire Flame Test.
◆ Spools are one piece, but length may vary +20% –0 from length shown.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.
⊖Technical Bulletin T/8-21 and T/8-9.

Audio and Computer Cables

20 Gage
Stranded Conductors (7x28)

S-R PVC Insulated

Product Description

Tinned copper, S-R PVC insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 22 AWG stranded tinned copper drain wire, overall chrome PVC jacket. Color code: Red/Black, Green/White.

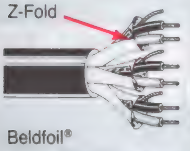
Description	Trade & U.L. Style Number	No. of Pairs	Standard Length		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance‡			
			ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
Z-Fold Beldfoil® 100% Shield Coverage	**9402†** 2464 300V 80C	2	U-500 1000	U-152.4 304.8	24.4 52.7	.010	.25	.041	1.04	.300	7.62	55	180	95	312

20 Gage
Stranded Conductors (10x30)

Polypropylene Insulated

Product Description

Tinned copper, polypropylene insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 22 AWG stranded tinned copper drain wire, overall black high-density polyethylene jacket. Suggested working voltage: 350. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Length		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance‡			
			ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
Z-Fold  Beldfoil® 100% Shield Coverage 80C	**9883** **Direct Burial**	3	500 1000	152.4 304.8	27.0 57.5	.013	.33	.040	1.02	.340	8.64	30	98	55	180
	9886 **Direct Burial**	6	500 1000	152.4 304.8	56.7 110.3	.013	.33	.045	1.14	.455	11.56	30	98	55	180

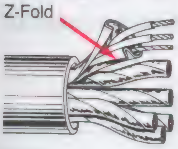
Computer Cables

20 Gage
Stranded Conductors (10x30)

Polypropylene Insulated

Product Description

Tinned copper, polypropylene insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 22 AWG stranded tinned copper drain wire, overall chrome PVC jacket. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	
Z-Fold  Beldfoil 100% Shield Coverage 2919 30V 80C **See Attenuation, Rise Time and Bit Rate data for this series on page 63.**	**9873†**	3	100 250 500 1000	30.5 76.2 152.4 304.8	5.9 14.8 28.0 57.3	20 (10x30) 10.5Ω/M′ 34.4Ω/km	11.3Ω/M′ 37.1Ω/km	.328	8.33	50	66%	30	98	55	180	2.4
	9874†	6	100 250 500 1000	30.5 76.2 152.4 304.8	12.8 29.8 62.6 122.3	20 (10x30) 10.5Ω/M′ 34.4Ω/km	11.3Ω/M′ 37.1Ω/km	.433	11.00	50	66%	30	98	55	180	2.4
	9875†	9	100 250 500 1000	30.5 76.2 152.4 304.8	18.3 46.0 90.0 180.8	20 (10x30) 10.5Ω/M′ 34.4Ω/km	11.3Ω/M′ 37.1Ω/km	.529	13.44	50	66%	30	98	55	180	2.4
	9876†	11	100 250 500 1000	30.5 76.2 152.4 304.8	20.5 51.8 101.6 203.3	20 (10x30) 10.5Ω/M′ 34.4Ω/km	11.3Ω/M′ 37.1Ω/km	.554	14.07	50	66%	30	98	55	180	2.4
	9877†	12	100 250 500 1000	30.5 76.2 152.4 304.8	21.8 54.8 111.5 216.0	20 (10x30) 10.5Ω/M′ 34.4Ω/km	11.3Ω/M′ 37.1Ω/km	.574	14.58	50	66%	30	98	55	180	2.4
	9879†	15	100 250 500 1000	30.5 76.2 152.4 304.8	28.0 67.5 132.1 257.8	20 (10x30) 10.5Ω/M′ 34.4Ω/km	11.3Ω/M′ 37.1Ω/km	.629	15.98	50	66%	30	98	55	180	2.4

†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
‡At 1 Khz.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

Computer Cables

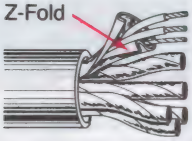
18 Gage

Stranded Conductors (16x30)

Polypropylene Insulated

Product Description

Tinned copper, polypropylene insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 20 AWG stranded tinned copper drain wire, overall chrome PVC jacket. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	
 Beldfoil® 100% Shield Coverage 2919 30V 80C **See Attenuation, Rise Time and Bit Rate data for this series on page 63.**	**9773†**	3	100 500 1000	30.5 152.4 304.8	8.3 41.8 83.5	18 (16x30) 6.4Ω/M' 21Ω/km	8.3Ω/M' 27.2Ω/km	.370	9.40	50	66%	30	98	55	180	3.9
	9774†	6	100 500 1000	30.5 152.4 304.8	19.3 95.6 192.5	18 (16x30) 6.4Ω/M' 21Ω/km	8.3Ω/M' 27.2Ω/km	.559	14.20	50	66%	30	98	55	180	3.9
	9775†	9	100 500 1000	30.5 152.4 304.8	25.7 131.8 256.6	18 (16x30) 6.4Ω/M' 21Ω/km	8.3Ω/M' 27.2Ω/km	.629	16.00	50	66%	30	98	55	180	3.9
	9776†	12	100 500 1000	30.5 152.4 304.8	32.4 162.0 336.5	18 (16x30) 6.4Ω/M' 21Ω/km	8.3Ω/M' 27.2Ω/km	.714	18.14	50	66%	30	98	55	180	3.9
	9777†	15	100 500 1000	30.5 152.4 304.8	41.8 206.4 420.8	18 (16x30) 6.4Ω/M' 21Ω/km	8.3Ω/M' 27.2Ω/km	.784	19.91	50	66%	30	98	55	180	3.9

†Passes the VW-1 Vertical Wire Flame Test.

*Capacitance between conductors.

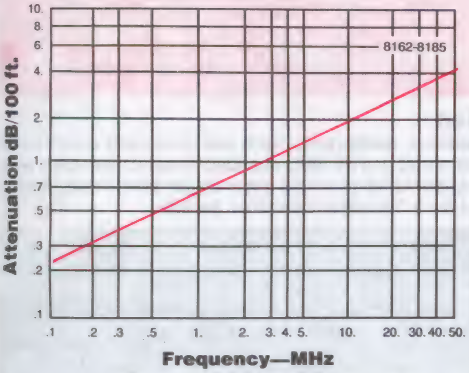
**Capacitance between 1 conductor and other conductors connected to shield.

††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

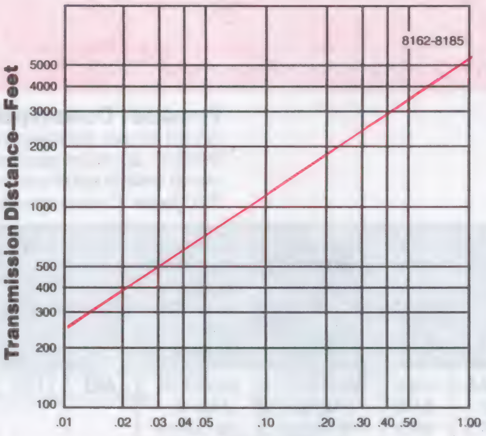
Datalene® insulation features are low dielectric constant and a dissipation factor for high-speed, low-distortion data handling. Physical properties include good crush resistance and light weight.

Datalene® Insulated Cables

Attenuation Chart

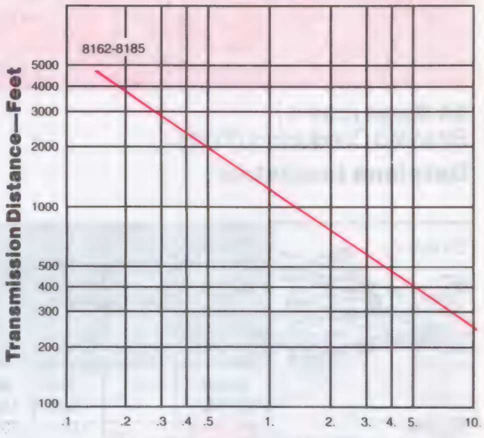


Rise Time



Cables are terminated in their characteristic impedance. Signal source electrical characteristics: 50 ohms and 10% to 90% rise time less than 5 nanoseconds.

Bit Rate

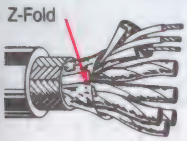


Charts assume 5% peak-to-peak time jitter as determined by eye pattern measurements of pseudorandom NRZ code.

Computer Cables For EIA RS-422 and Cad/Cam Applications

24 Gage
Stranded Conductors (7x32)
Datalene Insulated

Product Description
Tinned copper, Datalene insulated, twisted pairs, each pair individually shielded with Beldfoil® aluminum-polyester shield and 24 AWG stranded tinned copper drain wire, overall Beldfoil aluminum-polyester shield plus 65% tinned copper braid shield. Chrome PVC jacket. Color code chart No. 3, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	
	**New 8162**†	2	100 500 1000	30.5 152.4 304.8	6.5 33.0 65.5	24 (7x32) 24Ω/M' 78.7Ω/km	Individual 18Ω/M' 59.1Ω/km Overall 4.3Ω/M' 14.1Ω/km	.376	9.55	100	78%	12.5	41	22	72.2	2.1
Beldfoil® 100% Shield Coverage UL 2493 60C	**New 8163**†	3	100 500 1000	30.5 152.4 304.8	7.3 37.9 73.9	24 (7x32) 24Ω/M' 78.7Ω/km	Individual 18Ω/M' 59.1Ω/km Overall 4.4Ω/M' 14.4Ω/km	.376	9.55	100	78%	12.5	41	22	72.2	2.1

†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

Paired

Individually Shielded Pairs with Overall Foil/Braid Shield

Datalene® insulation features are low dielectric constant and a dissipation factor for high-speed, low-distortion data handling. Physical properties include good crush resistance and light weight.

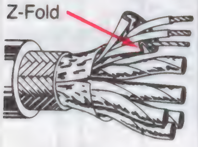
Computer Cables For EIA RS-422 and Cad/Cam Applications

24 Gage (cont'd.)
Stranded Conductors (7x32)

Datalene Insulated

Product Description

Tinned copper, Datalene insulated, twisted pairs, each pair individually shielded with Beldfoil® aluminum-polyester shield and 24 AWG stranded tinned copper drain wire, overall Beldfoil aluminum-polyester shield plus 65% tinned copper braid shield. Chrome PVC jacket. Color code chart No. 3, Technical Information Section.



Beldfoil®
100% Shield Coverage

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m	
	New 8164† ЯU 2493 60C	4	100 500 1000	30.5 152.4 304.8	9.5 44.3 90.6	24 (7x32) 24Ω/M′ 78.7Ω/km	Individual 18Ω/M′ 59.1Ω/km Overall 3.2Ω/M′ 10.5Ω/km	.430	10.92	100	78%	12.5	41	22	72.2	2.1
	New 8165† ЯU 2493 60C	5	100 500 1000	30.5 152.4 304.8	10.4 51.3 99.6	24 (7x32) 24Ω/M′ 78.7Ω/km	Individual 18Ω/M′ 59.1Ω/km Overall 3.4Ω/M′ 11.2Ω/km	.460	11.68	100	78%	12.5	41	22	72.2	2.1
	New 8166† ЯU 2493 60C	6	100 500 1000	30.5 152.4 304.8	11.5 57.0 110.4	24 (7x32) 24Ω/M′ 78.7Ω/km	Individual 18Ω/M′ 59.1Ω/km Overall 2.8Ω/M′ 9.2Ω/km	.496	12.60	100	78%	12.5	41	22	72.2	2.1
	New 8167† ЯU 2493 60C	7	100 500 1000	30.5 152.4 304.8	11.9 58.8 114.6	24 (7x32) 24Ω/M′ 78.7Ω/km	Individual 18Ω/M′ 59.1Ω/km Overall 2.8Ω/M′ 9.2Ω/km	.496	12.60	100	78%	12.5	41	22	72.2	2.1
	New 8168† ЯU 2493 60C	8	100 500 1000	30.5 152.4 304.8	15.0 74.3 149.6	24 (7x32) 24Ω/M′ 78.7Ω/km	Individual 18Ω/M′ 59.1Ω/km Overall 3.0Ω/M′ 9.8Ω/km	.575	14.61	100	78%	12.5	41	22	72.2	2.1
	New 8170† ЯU 2493 60C	10	100 500 1000	30.5 152.4 304.8	20.3 93.2 179.5	24 (7x32) 24Ω/M′ 78.7Ω/km	Individual 18Ω/M′ 59.1Ω/km Overall 2.7Ω/M′ 8.9Ω/km	.650	16.51	100	78%	12.5	41	22	72.2	2.1
	New 8175† ЯU 2493 60C	15	100 500 1000	30.5 152.4 304.8	24.6 115.2 234.4	24 (7x32) 24Ω/M′ 78.7Ω/km	Individual 18Ω/M′ 59.1Ω/km Overall 2.5Ω/M′ 8.2Ω/km	.720	18.29	100	78%	12.5	41	22	72.2	2.1
	New 8178† ЯU 2493 60C	18	100 500 1000	30.5 152.4 304.8	27.5 134.3 262.7	24 (7x32) 24Ω/M′ 78.7Ω/km	Individual 18Ω/M′ 59.1Ω/km Overall 2.6Ω/M′ 8.5Ω/km	.770	19.56	100	78%	12.5	41	22	72.2	2.1
	New 8185† ЯU 2490 60C	25	100 500 1000	30.5 152.4 304.8	39.1 187.5 427.0	24 (7x32) 24Ω/M′ 78.7Ω/km	Individual 18Ω/M′ 59.1Ω/km Overall 2.4Ω/M′ 7.9Ω/km	.935	23.75	100	78%	12.5	41	22	72.2	2.1

†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

Coaxial Cables

The cables in this section are organized in numerical sequence by RG/U type

Belden manufactures one of the most comprehensive lines of coaxial cables available from any single source. This category includes:

- Coaxial Cables
- Twinaxial Cables
- Triaxial Cables
- A full line of RG coaxial cables for both military and commercial applications
- Precision video cables for broadcast, MATV, CCTV and home entertainment uses
- Computer cables
- Flooded burial and converter cables
- Cables certified to MIL-C-17F specifications

Belden coaxial cables are application engineered in a wide selection of materials, sizes and shield configurations. Each offers specific advantages relative to physical and electrical application requirements. We offer a full range of MATV cables designed to meet your exact needs—copper and copper covered steel conductors, Duofoil and Duobond II, high coverage braids and combinations of these shields. Most of the cables in this group are sweep tested using the Structural Return Loss Method to insure consistent cable performance and uniform electrical characteristics.

Packaging

Belden's unique UNREEL® cable dispenser is available for many of the cables listed in this section. The letter "U" before the specified put-up length denotes UNREEL packaging.

Mil-Spec Coaxial Reference Guide

Cable Designation	Spec. Reference	Belden Number	Page
RG-8/U	JAN-C-17A	8237	76
RG-8A/U	MIL-C-17D	9251	76
RG-9/U	JAN-C-17A	8242	77
RG-11/U	JAN-C-17A	8238	78
RG-11A/U	MIL-C-17D	8261	78
M17/6-RG11	MIL-C-17F	9212	78
RG-58/U	JAN-C-17A	8240	79
RG-58A/U	JAN-C-17A	8259	79
RG-58C/U	MIL-C-17D	8262	79
M17/28-RG58	MIL-C-17F	9203	79
RG-59/U	JAN-C-17A	8241	80
RG-59B/U	MIL-C-17D	8263	80
RG-62/U	JAN-C-17A	8254	84
M17/30-RG62	MIL-C-17F	9862	84
RG-62B/U	MIL-C-17D	8255	84
M17/157-00001	MIL-C-17F	9252	85
RG-174/U	MIL-C-17D	8216	85
RG-213/U	MIL-C-17D	8267	85
M17/164-00001	MIL-C-17F	8268	85
M17/167-00001	MIL-C-17F	9273	85

Coaxial Cables

Coaxial Computer Cables

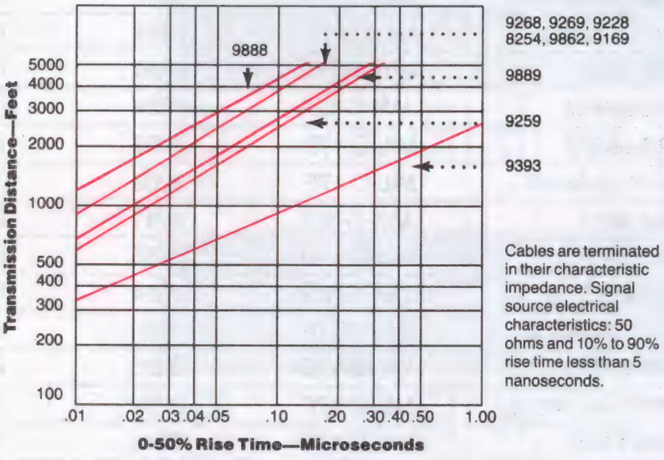
Belden coaxial computer cables are designed for use with data processing equipment and information systems which require very precise signal characteristics. All cables are carefully tested to assure uniform electrical performance.

Custom Design Center

If you have a new or unusual application or you cannot find wire in this section which meets your technical requirements, contact Belden's Product Engineering Group. Phone 317/983-5200.

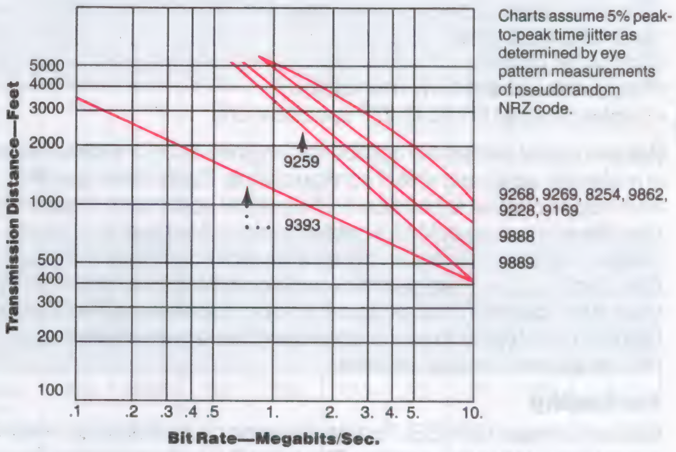
Computer Cable Electrical Characteristics

Rise Time



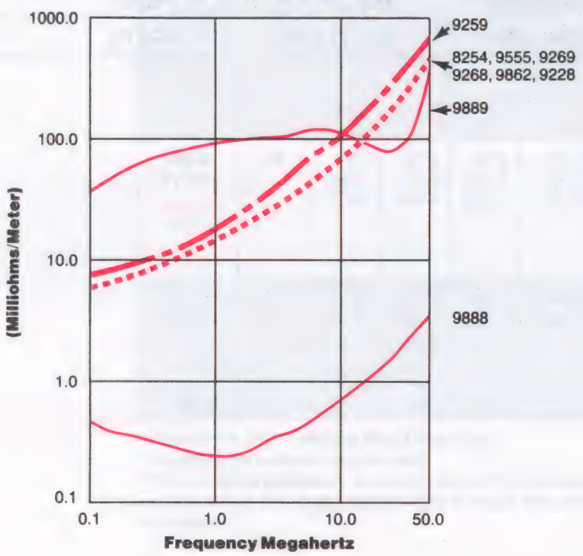
Cables are terminated in their characteristic impedance. Signal source electrical characteristics: 50 ohms and 10% to 90% rise time less than 5 nanoseconds.

Bit Rate

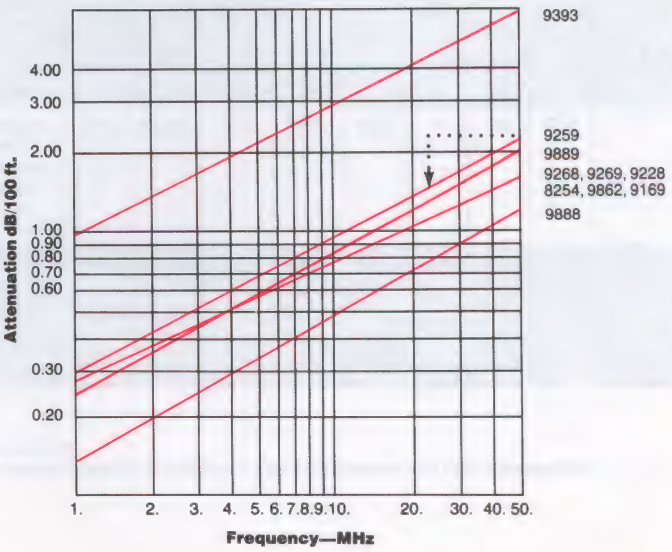


Charts assume 5% peak-to-peak time jitter as determined by eye pattern measurements of pseudorandom NRZ code.

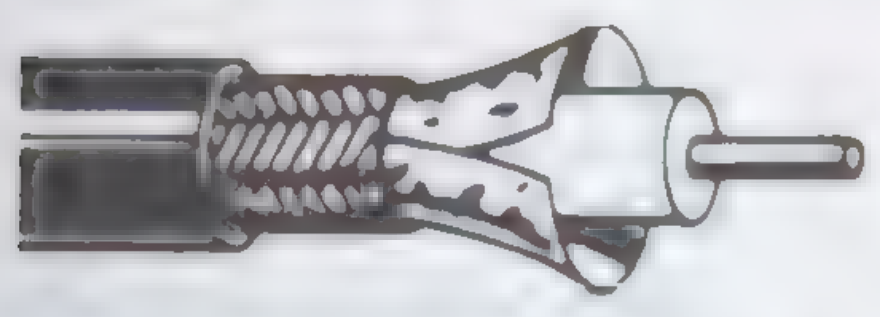
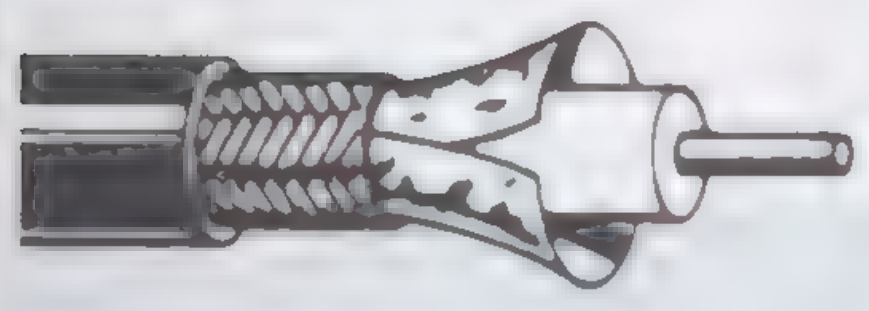
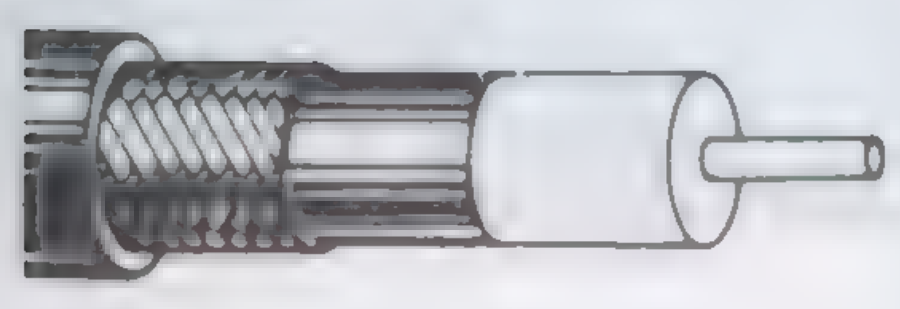
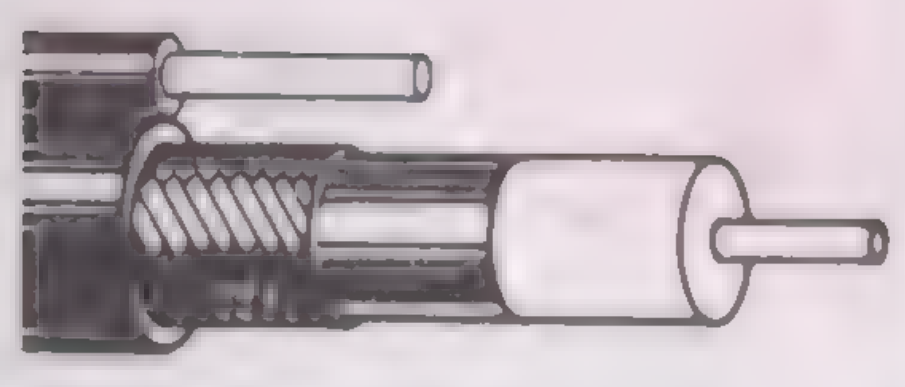
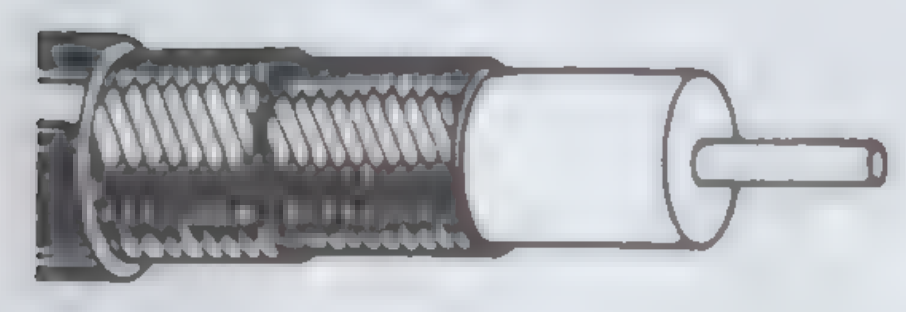
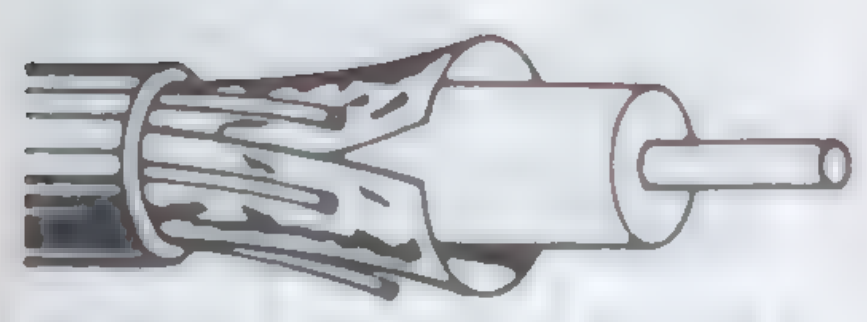
Transfer Impedance



Sinusoidal Frequency Attenuation Chart



MATV Cables

Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 **RG-6/U Type**	**9146** 60C	U-500♦ 500♦ U-1000♦ 1000♦	U-152.4 152.4 U-304.8 304.8	12.8 13.5 24.5 27.5	18 (Solid) .037 bare copper covered steel 45.5Ω/M' 149.3Ω/km	Cellular Polyethylene .180	4.57	.275	6.99	Duofoil® + 20% aluminum braid 100% coverage	75 Black PVC jacket. 100% Sweep Tested 5-450 MHz	78%	17.3	56.8	50 100 200 500 900	1.5 2.1 3.1 5.0 6.9	4.9 6.9 10.2 16.4 22.6
 **RG-6/U Type**	**9248**† UL 1354 30V 60C	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	15.6 16.4 30.3 33.3	18 (Solid) .037 bare copper 7.5Ω/M' 24.6Ω/km	Cellular Polyethylene .180	4.57	.270	6.86	Duofoil +61% tinned copper braid 5.2Ω/M' 17.1Ω/km 100% shield coverage	75 Black PVC jacket. 100% Sweep Tested 5-450 MHz	78%	17.3	56.8	50 100 200 500 900	1.5 2.1 3.1 5.0 6.9	4.9 6.9 10.2 16.4 22.6
 **RG-6/U Type**	**9114** Replaces 9283 60C	U-500♦ 1000♦ U-1000♦	U-152.4 304.8 U-304.8	13.1 29.2 25.2	18 (Solid) .037 bare copper covered steel 45.5Ω/M' 149.3Ω/km	Cellular Polyethylene .180	4.57	.275	7.00	Duobond II® + 40% aluminum braid 100% shield coverage	75 Black or Lt. Beige PVC jacket. 100% Sweep Tested 5-450 MHZ	78%	17.3	56.8	50 100 200 500 900	1.5 2.1 3.1 5.0 6.9	4.9 6.9 10.2 16.4 22.6
 **RG-6/U Type**	**9115** Replaces 9285 60C	1000♦	304.8	44.3	18 (Solid) .037 bare copper covered steel 45.5Ω/M' 149.3Ω/km	Cellular Polyethylene .180	4.57	.275 x .395	7.00 x 10.03	Duobond II + 40% aluminum braid 100% shield coverage	75 Black PVC jacket. 100% Sweep Tested 5-450 MHz Messengered—.051 (1.3 mm) galvanized steel messenger.	78%	17.3	56.8	50 100 200 500 900	1.5 2.1 3.1 5.0 6.9	4.9 6.9 10.2 16.4 22.6
 **RG-6/U Type**	**9290** 80C	U-500♦ 500♦ 1000♦ 2000	U-152.4 152.4 304.8 609.7	27.3 28.1 57.6 113.2	18 (Solid) .037 bare copper 7.5Ω/M' 24.6Ω/km	Cellular Polyethylene .180	4.57	.200	7.37	2 bare copper braid 2.0Ω/M' 6.6Ω/km 98% shield coverage	75 Black PVC jacket. 100% Sweep Tested 5-450 MHz	78%	17.3	56.8	50 100 200 500 900	1.5 2.1 3.1 5.0 6.9	4.9 6.9 10.2 16.4 22.6
 **RG-6/U Type**	**8228**[P] 60C	100 Black	30.5	3.0	18 (Solid) .037 bare copper 7.5Ω/M' 24.6Ω/km	Cellular Polyethylene .180	4.57	.242	6.15	Duofoil + drain 19.5Ω/M' 64.0Ω/km 100% shield coverage	75 PVC jacket. 100% Sweep Tested 5-300 MHz	78%	17.3	56.8	50 100 200 500 900	1.5 2.1 3.1 5.0 6.9	4.9 6.9 10.2 16.4 22.6
		U-500 White Black	U-152.4	12.7													
		500 White Black	152.4	13.4													
		U-1000 White Black	U-304.8	24.4													
		1000 White Black	304.8	25.1													

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†Passes the VW-1 Vertical Wire Flame Test.

[P] Belden U.S. Patent 3,927,247, Canadian Patent #875,188.

♦ Spools are one piece, but length may vary ± 10% from length shown.

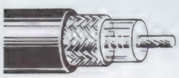
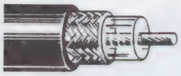
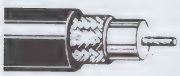
Request quotations of RG/U cables not listed.

Coaxial

MATV Cables

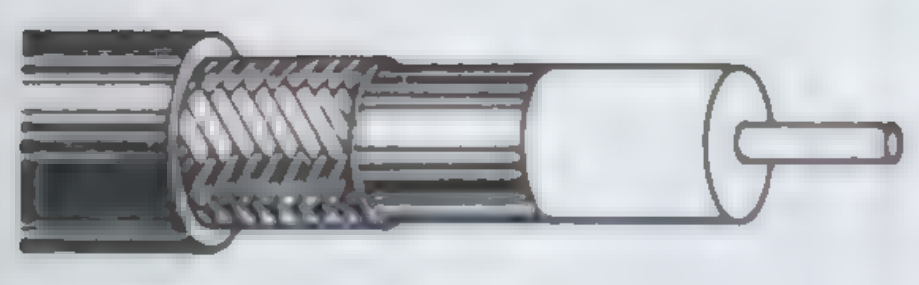
Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
Flooded Burial Cable RG-6/U Type	**9587** 80C	1000 ♦	304.8	30.6	18 (Solid) .037 copper covered steel 45.5Ω/M′ 149.3Ω/km	Cellular Polyethylene .180	4.57	.275	6.99	Duofoil® + 61% aluminum braid + flooding 11.0Ω/M′ 36.0Ω/km 100% shield coverage	75	78%	17.3	56.8	50	1.5	4.9
											Black polyethylene jacket. 100% Sweep Tested 5-450 MHz				100	2.1	6.9
															200	3.1	10.2
															500	5.0	16.4
															900	6.9	22.6
Special Application MATV Cable RG 6A/U Type	**8215** 80C	500	152.4	36.1	21 (Solid) .028 bare copper covered steel 32.0Ω/M′ 104.9Ω/km	Polyethylene .185	4.70	.332	8.43	2 bare copper braids 1.1Ω/M′ 3.6Ω/km 97% shield coverage	75	66%	20.5	67.3	50	1.9	6.2
		1000	304.8	73.5											100	2.7	8.9
											Black polyethylene jacket. 100% Sweep Tested 5-450 MHz				200	4.1	13.5
															400	5.9	19.4
															700	8.1	26.6
															900	9.3	30.5
															1000	9.8	32.2

Broadcast Cables

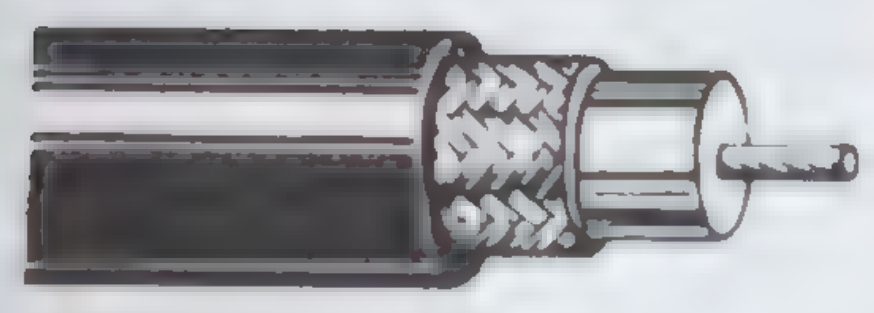
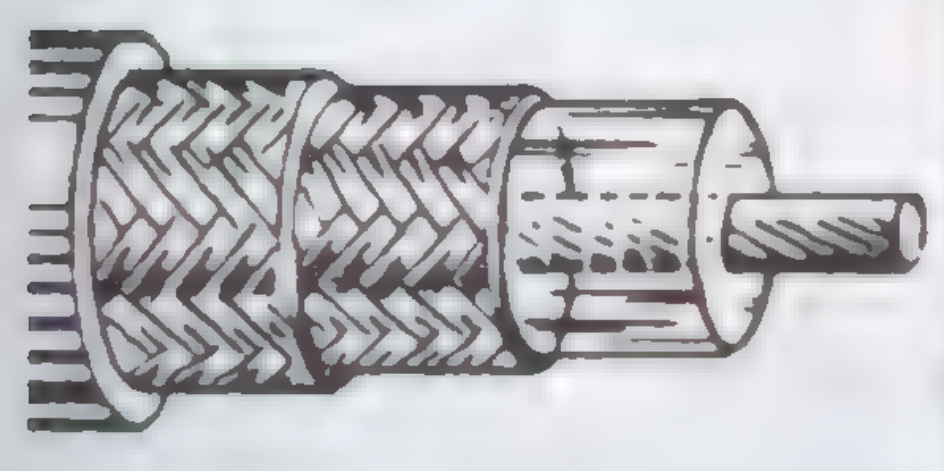
Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 **RG-8/U JAN-C-17A**	**8237**† 80C	50	15.2	5.8	13 (7x21) .085 bare copper 1.87Ω/M′ 6.1Ω/km	Polyethylene .285	7.24	.405	10.29	Bare copper 1.2Ω/M′ 3.9Ω/km 97% shield coverage	52	66%	29.5	96.8	50	1.6	5.2
		100	30.5	10.8							Black PVC jacket.				100	2.2	7.2
		400	121.9	44.2											200	3.2	10.5
		500	152.4	55.3											400	4.7	15.4
		1000	304.8	108.6											700	6.9	22.6
															900	8.0	26.3
															1000	8.9	29.2
															4000	21.5	70.5
 **RG-8 A/U-MIL-C-17D**	**9251**† 1354 60C	100	30.5	10.9	13 (7x21) .085 bare copper 1.87Ω/M′ 6.1Ω/km	Polyethylene .285	7.24	.405	10.29	Bare copper 1.2Ω/M′ 3.9Ω/km 97% shield coverage	52	66%	29.5	96.8	50	1.6	5.2
		400	121.9	44.4							Black non-contaminating PVC jacket.				100	2.2	7.2
		500	152.4	55.6											200	3.2	10.5
		1000	304.8	109.1											400	4.7	15.4
															700	6.9	22.6
															900	8.0	26.3
															4000	21.5	70.5
 **RG-8/U Type**	**9208** 80C	100	30.5	8.3	13 (7x21) .085 bare copper 1.87Ω/M′ 6.1Ω/km	Cellular Polyethylene .274	6.96	.397	10.10	Bare copper 2.15Ω/M′ 7.1Ω/km 80% shield coverage	57	78%	22.6	74.1	50	1.2	3.9
		500	152.4	42.7											100	1.8	5.9
		1000	304.8	83.4											200	2.7	8.9
											Black PVC jacket.				400	4.2	13.8
															700	5.8	19.0
															900	6.7	22.0
															1000	7.1	23.3

†Passes the VW-1 Vertical Wire Flame Test.
♦ Spools are one piece, but length may vary ±10% from length shown.
Request quotations of RG/U cables not listed.

Low Loss VHF/UHF Cables

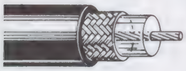
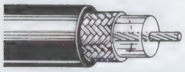
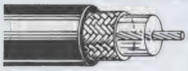
Description	Trade & U.L. Type Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D. Inch	Insulation & Nominal Core O.D. mm	Nominal O.D. Inch	Nominal O.D. mm	No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance pF/ft.	Nominal Capacitance pF/m	Nominal Attenuation MHz	Nominal Attenuation db/100 ft.	Nominal Attenuation db/100 m
	9913 80C	100 250 500 1000	30.5 76.2 152.4 304.8	17.9 31.3 48.7 97.3	9½ (Solid) .108 bare copper .90Ω/M' 2.95Ω/km	Semi-solid Poly-ethylene .285	7.24	.405	10.29	Duobond II® + 88% tinned copper braid 1.8 Ω/M' 6.0Ω/km 100% shield coverage	50 Black PVC jacket.	84%	24	78.7	50 100 200 400 700 900 1000 4000	0.9 1.4 1.8 2.6 3.6 4.2 4.5 11.0	3.0 4.6 5.9 8.5 11.8 13.8 14.8 36.1
 **RG-8/U Type**	**9914** ЯU 1354 60C	100 250 500 1000	30.5 76.2 152.4 304.8	19.4 35.0 57.1 112.2	10 (Solid) .103 bare copper 1.19Ω/M' 3.87Ω/km	Cellular Poly-ethylene .285	7.24	.405	10.29	Duobond II + 97% tinned copper braid 1.1Ω/M' 3.6Ω/km 100% shield coverage	50 Black PVC jacket.	78%	26	85.3	50 100 200 400 700 900 1000 4000	1.1 1.6 2.4 3.5 5.0 5.7 6.0 13.0	3.6 5.2 7.9 11.5 16.4 18.7 19.7 42.6

Broadcast Cables

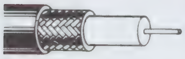
Description	Trade & U.L. Type Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D. Inch	Insulation & Nominal Core O.D. mm	Nominal O.D. Inch	Nominal O.D. mm	No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance pF/ft.	Nominal Capacitance pF/m	Nominal Attenuation MHz	Nominal Attenuation db/100 ft.	Nominal Attenuation db/100 m
 RG-8/U Type	**8214†** ЯU 1354 60C	50 100 400 500 1000	15.2 30.5 121.9 152.4 304.8	5.8 10.7 44.0 55.0 107.9	11 (7x19) .108 bare copper 1.15Ω/M' 3.8Ω/km	Cellular Poly-ethylene .285	7.24	.405	10.29	Bare copper 1.1Ω/M' 3.6Ω/km 97% shield coverage	50 Black PVC jacket.	78%	26	85.3	50 100 200 400 700 900 4000	1.2 1.8 2.7 4.2 5.8 6.7 18.0	3.9 5.9 8.9 13.8 19.0 22.0 59.1
 **RG-8/X Type**	**9258** ЯU 1354 60C	25 50 100 500 U-500 1000 U-1000	7.6 15.2 30.5 152.4 U-152.4 304.8 U-304.8	1.3 2.1 4.1 19.0 18.2 36.4 35.5	16 (19x29) .056 bare copper 4.30Ω/M' 14.1Ω/km	Cellular Poly-ethylene .155	3.94	.242	6.15	Bare copper 3.3Ω/M' 10.8Ω/km 95% shield coverage	50 Black or white PVC jacket.	78%	26	85.3	50 100 200 400 700 900 1000	2.5 3.7 5.4 8.0 11.1 12.8 13.5	8.2 12.1 17.7 26.2 36.4 42.0 44.3
 **RG-9/U JAN-C-17A**	**8242†** ЯU 1354 60C	100 1000	30.5 304.8	13.8 138.8	13 (7x21) .086 silver coated copper 1.87Ω/M' 6.1Ω/km	Poly-ethylene .280	7.11	.420	10.67	2-inner-silver coated outer-bare copper 0.7Ω/M' 2.3Ω/km 97% shield coverage	51 Gray non-contaminating PVC jacket.	66%	30	98.4	50 100 200 400 700 900 1000 4000	1.6 2.2 3.2 4.7 6.9 8.0 8.9 21.5	5.2 7.2 10.5 15.4 22.6 26.3 29.2 70.5

†Passes the VW-1 Vertical Wire Flame Test.
Request quotations of RG/U cables not listed.

Broadcast Cables

Description	Trade & U.L. Type Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D. Inch	Insulation & Nominal Core O.D. mm	Nominal O.D. Inch	Nominal O.D. mm	No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance pF/ft.	Nominal Capacitance pF/m	Nominal Attenuation MHz	Nominal Attenuation db/100 ft.	Nominal Attenuation db/100 m
 **RG-11/U** **JAN-C-17A**	**8238** 80C	100 500 1000	30.5 152.4 304.8	9.9 50.6 99.2	18 (7x26) .048 tinned copper 6.06Ω/M′ 19.9Ω/km	Poly-ethylene .285	7.24	.405	10.29	Bare copper 1.24Ω/M′ 4.1Ω/km 97% shield coverage	75 Black PVC jacket.	66%	20.5	67.3	50 100 200 400 700 900 1000	1.3 2.0 2.9 4.2 5.8 6.8 7.1	4.3 6.6 9.5 13.8 19.0 22.3 23.3
 **RG-11 A/U** **MIL-C-17D**	**8261†** 80C	500 1000	152.4 304.8	48.7 95.3	18 (7x26) .048 tinned copper 6.06Ω/M′ 19.9Ω/km	Poly-ethylene .285	7.24	.405	10.29	Bare copper 1.24Ω/M′ 4.1Ω/km 97% shield coverage	75 Black non-contaminating PVC jacket.	66%	20.5	67.3	50 100 200 400 700 900 1000	1.3 2.0 2.9 4.2 5.8 6.8 7.1	4.3 6.6 9.5 13.8 19.0 22.3 23.3
 **MIL-C-17F** **M17/6-RG11** **QPL**	**9212†** 80C	100 500 1000	30.5 152.4 304.8	9.5 48.7 95.3	18 (7x26) .048 tinned copper 6.06Ω/M′ 19.9Ω/km	Poly-ethylene .285	7.24	.405	10.29	Bare copper 1.24Ω/M′ 4.1Ω/km 97% shield coverage	75 Black non-contaminating PVC jacket.	66%	20.5	67.3	50 100 200 400 700 900 1000	1.3 2.0 2.9 4.2 5.8 6.8 7.1	4.3 6.6 9.5 13.8 19.0 22.3 23.3

Special Application MATV Cables

Description	Trade & U.L. Type Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D. Inch	Insulation & Nominal Core O.D. mm	Nominal O.D. Inch	Nominal O.D. mm	No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance pF/ft.	Nominal Capacitance pF/m	Nominal Attenuation MHz	Nominal Attenuation db/100 ft.	Nominal Attenuation db/100 m
 **RG-11/U Type**	**8213** 80C	500 1000 2000	152.4 304.8 609.6	43.4 85.9 172.8	14 (Solid) .064 bare copper 2.6Ω/M′ 8.5Ω/km	Cellular Poly-ethylene .285	7.24	.405	10.29	Bare copper braid 1.1Ω/M′ 3.6Ω/km 95% shield coverage	75 Black polyethylene jacket. 100% Sweep Tested 5-450 MHz	78%	17.3	56.8	50 100 200 500 900	1.0 1.5 2.2 3.7 5.2	3.3 4.9 7.2 12.1 17.1
 RG-11/U Type	**9230**ᴾ 80C	500 1000 2000	152.4 304.8 609.6	32.7 65.4 126.7	14 (Solid) .064 bare copper 2.6Ω/M′ 8.5Ω/km	Cellular Poly-ethylene .285	7.24	.380	9.65	Duofoil® + drain 16.0Ω/M′ 52.5Ω/km 100% shield coverage	75 Black PVC jacket. 100% Sweep Tested 5-450 MHz	78%	17.3	56.8	50 100 200 500 900	1.0 1.5 2.2 3.7 5.2	3.3 4.9 7.2 12.1 17.1
 RG-11/U Type	**9292** 80C	1000 ◆	304.8	79.5	14 (Solid) .064 bare copper 2.6Ω/M′ 8.5Ω/km	Cellular Poly-ethylene .285	7.24	.405	10.29	Duofoil + 61% tinned copper braid 3.0Ω/M′ 9.8Ω/km 100% shield coverage	75 Black PVC jacket. 100% Sweep Tested 5-450 MHz **For Plenum Version, see 89292 on page 132.**	78%	17.3	56.8	50 100 200 500 900	1.0 1.5 2.2 3.7 5.2	3.3 4.9 7.2 12.1 17.1
 RG-11/U Type	**9011** 80C	1000 ◆	304.8	62.5	14 (Solid) .064 bare copper covered steel 8.4Ω/M′ 27.6Ω/km	Cellular Poly-ethylene .285	7.24	.405	10.29	Duofoil + 40% aluminum braid 100% shield coverage	75 Black PVC jacket. 100% Sweep Tested 5-450 MHz	78%	17.3	56.8	50 100 200 500 900	1.0 1.5 2.2 3.7 5.2	3.3 4.9 7.2 12.1 17.1

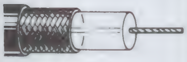
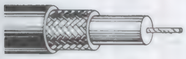
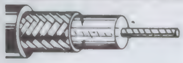
†Passes the VW-1 Vertical Flame Test.

ᴾBelden U.S. Patent 3,927,247, Canadian Patent #875,188.

◆ Spools are one piece, but length may vary ±10% from length shown.

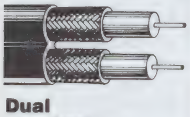
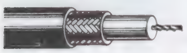
Request quotations of RG/U cables not listed.

Broadcast Cables

Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 MIL-C-17F **M17/28-RG58** **QPL**	**9203** 80C	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	13.3 14.0 25.5 26.3	20 (19x.0071) .035 tinned copper 10.8Ω/M' 35.4Ω/km	Polyethylene .116	2.95	.195	4.95	Tinned copper 4.1Ω/M' 13.5Ω/km 95% shield coverage	50 Black non-contaminating PVC jacket.	66%	30.8	101.0	50 100 200 400 700 900 1000	3.3 4.9 7.3 11.5 17.0 20.0 21.5	10.8 16.1 23.9 37.7 55.8 65.6 70.5
 **RG-58A/U** **JAN-C-17A**	**8259** 60C	25 50 100 U-500 500 U-1000 1000	7.6 15.2 30.5 U-152.4 152.4 U-304.8 304.8	1.0 1.7 2.9 13.0 13.6 24.9 26.0	20 (19x.0071) .035 tinned copper 10.8Ω/M' 35.4Ω/km	Polyethylene .114	2.90	.195	4.95	Tinned copper 4.1Ω/M' 13.5Ω/km 96% shield coverage	50 Black PVC jacket.	66%	30.8	101.0	50 100 200 400 700 900 1000	3.3 4.9 7.3 11.5 17.0 20.0 21.5	10.8 16.1 23.9 37.7 55.8 65.6 70.5
 **RG-58 A/U Type**	**8219** RU 1354 60C	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	2.7 12.5 12.9 23.6 24.4	20 (19x32) .037 tinned copper 8.8Ω/M' 28.9Ω/km	Cellular Polyethylene .114	2.90	.195	4.95	Tinned copper 4.1Ω/M' 13.5Ω/km 96% shield coverage	50 Black or white PVC jacket.	78%	26.0	85.3	50 100 200 400 700 900 1000	3.2 4.5 6.4 9.0 12.0 13.8 14.5	10.5 14.8 21.0 29.5 39.4 45.3 47.6
 RG-58 A/U Type	**9311**∅ RU 1354 60C	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	2.4 10.0 10.1 19.1 19.9	20 (19x32) .037 tinned copper 8.8Ω/M' 28.9Ω/km	Cellular Polyethylene .114	2.90	.195	4.95	Duobond II® + 56% tinned copper braid 17.0Ω/M' 55.8Ω/km	50 Black PVC jacket.	78%	26.0	85.3	50 100 200 400 700 900 1000	3.2 4.5 6.4 9.0 12.0 13.8 14.5	10.5 14.8 21.0 29.5 39.4 45.3 47.6
 **MIL-C-17F** **M17/155-00001** **(RG-58 C/U)** **QPL**	**8262** 80C	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	13.3 13.9 25.5 26.3	20 (19x.0071) .035 tinned copper 10.8Ω/M' 35.4Ω/km	Polyethylene .116	2.95	.195	4.95	Tinned copper 4.1Ω/M' 13.5Ω/km 95% shield coverage	50 Black non-contaminating PVC jacket.	66%	30.8	101.0	50 100 200 400 700 900 1000	3.3 4.9 7.3 11.5 17.0 20.0 21.5	10.8 16.1 23.9 37.7 55.8 65.6 70.5
 RG-58/U **JAN-C-17A**	**8240** RU 1354 60C	25 50 100 U-500 500 U-1000 1000	7.6 15.2 30.5 U-152.4 152.4 U-304.8 304.8	1.0 1.7 2.9 13.4 14.1 26.0 26.6	20 (Solid) .032 bare copper 10.1Ω/M' 33.1Ω/km	Polyethylene .116	2.95	.195	4.95	Tinned copper 4.1Ω/M' 13.5Ω/km 95% shield coverage	53.5 Black PVC jacket. **For Plenum version, see 88240 on page 131.**	66%	28.5	93.5	50 100 200 400 700 900 1000	3.1 4.5 6.8 10.0 14.0 16.0 17.0	10.2 14.8 22.3 32.8 45.9 52.5 55.8
 RG-58/U Type	**9201** 75C	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	2.6 11.6 12.2 22.0 23.0	20 (Solid) .032 bare copper 10.1Ω/M' 33.1Ω/km	Polyethylene .116	2.95	.195	4.95	Bare copper 78% shield coverage	53.5 Black PVC jacket.	66%	28.5	93.5	50 100 200 400 700 900 1000	3.1 4.5 6.8 10.0 14.0 16.0 17.0	10.2 14.8 22.3 32.8 45.9 52.5 55.8
 RG-58/U Type	**9310**∅ RU 1354 60C	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	2.4 10.8 11.5 20.6 21.4	20 (Solid) .032 bare copper 10.1Ω/M' 33.1Ω/km	Polyethylene .114	2.90	.195	4.95	Duobond II + 56% tinned copper braid 14.0Ω/M' 45.9Ω/km 100% shield coverage	53.5 Black PVC jacket.	66%	28.5	93.5	50 100 200 400 700 900 1000	3.1 4.5 6.8 10.0 14.0 16.0 17.0	10.2 14.8 22.3 32.8 45.9 52.5 55.8

∅Request Technical Bulletin T/8-34 for connector information.
Request quotations of RG/U cables not listed.

Broadcast and Computer Cables

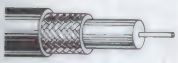
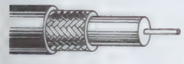
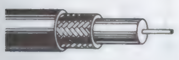
Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 RG-58/U Type	**9889** ЯU 1354 60C	500 1000 2000	152.4 304.8 609.6	15.6 29.6 60.5	18 (Solid) .041 bare copper 6.5Ω/M′ 21.3Ω/km	Cellular Polyethylene .116	2.95	.216	5.49	Duofoil® with 4/24 AWG tinned copper drain wires 25Ω/M′ 82Ω/km	50 Black PVC jacket.	78%	26	85.3	50 100 300 500 1000	3.3 4.9 9.3 13.6 18.8	10.8 16.1 30.5 44.6 61.7
 **Dual RG59/U Type**	**9555** ЯU 20063 300V 80C	100 500 1000	30.5 152.4 304.8	8.1 39.0 74.7	23 (Solid) .023 bare copper covered steel 47Ω/M′ 154.2Ω/km	Polyethylene .146	3.71	.238 x .478	6.04 x 12.14	Bare copper 2.6Ω/M′ 8.5Ω/km 95% shield coverage	75 Black PVC jacket. **For Plenum version, see 89555 on page 132.**	66%	20.5	67.3	100 200 400 700 900 1000	3.4 5.1 7.5 11.4 12.0 12.7	11.5 16.7 24.6 37.4 39.4 41.7
 **RG-59/U Type**	**9259** ЯU 1354 80C	50 100 U-500 500 U-1000 1000	15.2 30.5 U-152.4 152.4 U-304.8 304.8	2.0 4.0 18.4 19.1 35.7 36.7	22 (7x30) .031 bare copper 15.0Ω/M′ 49.2Ω/km	Cellular Polyethylene .146	3.71	.242	6.15	Bare copper 2.6Ω/M′ 8.5Ω/km 95% shield coverage	75 Black PVC jacket. For CCTV applications. 100% Sweep Tested 5-300 MHz **For Plenum version, see 89259 on page 131.**	78%	17.3	56.8	50 100 200 400 700 900 1000	2.1 3.0 4.5 6.6 8.9 10.1 10.9	6.9 9.8 14.8 21.7 29.2 33.1 35.8
 RG-59/U JAN-C-17A	**8241** ЯU 1354 60C	25 50 100 U-500 500 U-1000 1000 5000	7.6 15.2 30.5 U-152.4 152.4 U-304.8 304.8 1524.0	1.3 2.2 4.3 18.5 19.2 36.0 36.9 192.0	22 (Solid) .025 bare copper covered steel 55Ω/M′ 180.5Ω/km	Polyethylene .146	3.71	.242	6.15	Bare copper 2.7Ω/M′ 8.9Ω/km 95% shield coverage	73 Black PVC jacket. **For Plenum version, see 88241 on page 131.**	66%	21.0	68.9	50 100 200 400 700 900 1000	2.4 3.4 4.9 7.1 9.5 10.9 12.0	7.9 11.2 16.1 23.3 31.2 35.6 39.4

Broadcast Cables

Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 RG-59B/U MIL-C-17D	**8263†** 80C	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	18.1 18.8 35.2 36.1	23 (Solid) .023 bare copper covered steel 47Ω/M′ 154.2Ω/km	Polyethylene .146	3.71	.242	6.15	Bare copper 2.6Ω/M′ 8.5Ω/km 95% shield coverage	75 Black non-contaminating PVC jacket.	66%	20.5	67.3	50 100 200 400 700 900 1000	2.4 3.4 4.9 7.0 9.7 11.1 12.0	7.9 11.2 16.1 23.0 31.8 36.4 39.4
 MIL-C-17F M17/29-RG59 QPL	**9204†** 80C	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	18.1 18.7 35.2 36.0	23 (Solid) .023 bare copper covered steel 47Ω/M′ 154.2Ω/km	Polyethylene .146	3.71	.242	6.15	Bare copper 2.6Ω/M′ 8.5Ω/km 95% shield coverage	75 Black non-contaminating PVC jacket.	66%	20.5	67.3	50 100 200 400 700 900 1000	2.4 3.4 4.9 7.0 9.7 11.1 12.0	7.9 11.2 16.1 23.0 31.8 36.4 39.4
 RG-59/U Type	**New 9659†** ЯU 1354 80C	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	17.0 17.5 32.6 33.6	22 (7x30) .031 bare copper 15.0Ω/M′ 49.2Ω/km	Cellular Polyethylene .146	3.71	.242	6.15	Bare copper 2.6Ω/M′ 8.5Ω/km 95% shield coverage	75 Black non-contaminating PVC jacket. For CCTV applications. 100% Sweep Tested 5-300 MHz	78%	17.3	56.8	50 100 200 400 700 900 1000	2.1 3.0 4.5 6.6 8.9 10.1 10.9	6.9 9.8 14.8 21.7 29.2 33.1 35.8

†Passes the VW-1 Vertical Wire Flame Test.
Request quotations of RG/U cables not listed.

Broadcast and MATV Cables

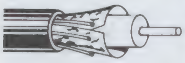
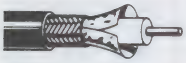
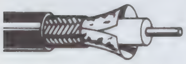
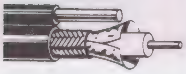
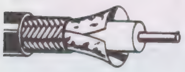
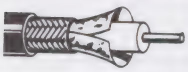
Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 **RG-59/U Type**	**9244** 1354 80C	U-500♦ 500♦ U-1000♦ 1000♦	U-152.4 152.4 U-304.8 304.8	15.9 16.6 30.8 31.7	22 (Solid) .025 bare copper covered steel 55.0Ω/M′ 180.5Ω/km	Poly-ethylene .146	3.71	.242	6.15	Bare copper braid 4.5Ω/M′ 14.8Ω/km 86% shield coverage	73 Black PVC jacket. 100% Sweep Tested 5-450 MHz	66%	21.0	68.9	50 100 200 400 700 900 1000	2.4 3.4 4.9 7.1 9.5 10.9 12.0	7.9 11.2 16.1 23.3 31.2 35.6 39.4
 **RG-59/U Type**	**8221** 80C	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	3.8 17.0 17.8 33.0 33.9	22 (Solid) .025 bare copper covered steel 55.0Ω/M′ 180.5Ω/km	Cellular Poly-ethylene .146	3.71	.242	6.15	Bare copper braid 2.6Ω/M′ 8.5Ω/km 95% shield coverage	80 Gray, white or black PVC jacket.	78%	16.3	53.5	50 100 200 400 700 900 1000	2.0 2.9 4.1 5.9 7.8 8.8 9.9	6.6 9.5 13.5 19.4 25.6 28.9 32.5
 **RG-59/U Type**	**9240** 80C	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	14.9 14.3 26.2 27.2	20 (Solid) .032 bare copper covered steel 61.5Ω/M′ 201.8Ω/km	Cellular Poly-ethylene .146	3.71	.242	6.15	Bare copper braid 5.6Ω/M′ 18.4Ω/km 80% shield coverage	75 Black PVC jacket.	78%	17.3	56.7	50 100 200 500 900 1000	1.8 2.6 3.8 6.2 8.4 8.8	5.9 8.5 12.5 21.0 27.6 28.9

MATV Cables

Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
RG-59/U Type	**9233**[P] 80C	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	11.0 11.7 21.0 22.0	22 (Solid) .025 bare copper covered steel 55.0Ω/M′ 180.4Ω/km	Cellular Poly-ethylene .140	3.56	.216	5.49	Duofoil® + drain 22.5Ω/M′ 73.8Ω/km 100% shield coverage	80 White, black PVC jacket.	78%	16.3	53.5	50 100 200 500 900	1.9 2.8 4.0 6.6 8.8	6.2 9.2 13.1 21.7 28.9
RG-59/U Type	**9291** 80C	U-500♦ 500♦ U-1000♦ 1000♦	U-152.4 152.4 U-304.8 304.8	10.7 11.5 20.5 21.4	22 (Solid) .025 bare copper covered steel 55.0Ω/km 180.5Ω/km	Cellular Poly-ethylene .140	3.56	.242	6.15	Duofoil 40% aluminum braid 17.0Ω/M′ 55.8Ω/km 100% shield coverage	80 Black PVC jacket.	78%	16.3	53.5	50 100 200 500 900	1.9 2.6 4.0 6.5 9.0	6.23 8.53 13.12 21.32 29.53

[P] Belden U.S. Patent 3,927,247, Canadian Patent #875,188.
♦ Spools are one piece, but length may vary ± 10% from length shown.
Request quotations of RG/U cables not listed.

MATV Cables

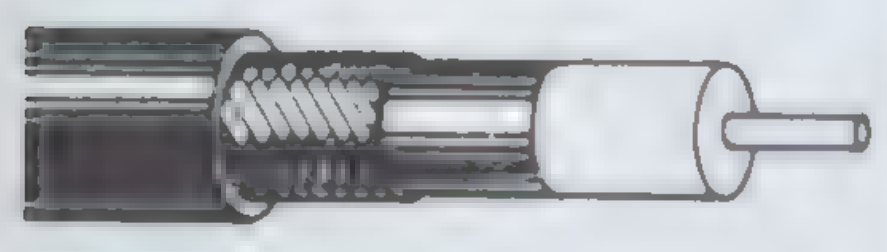
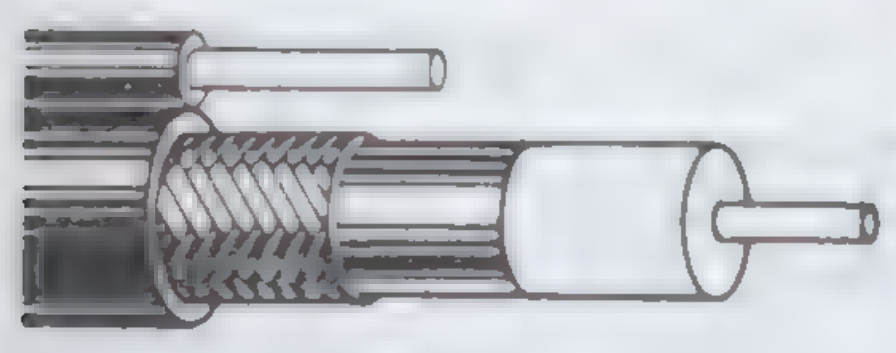
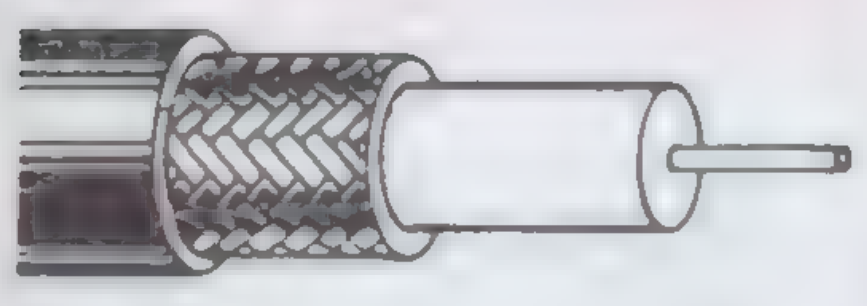
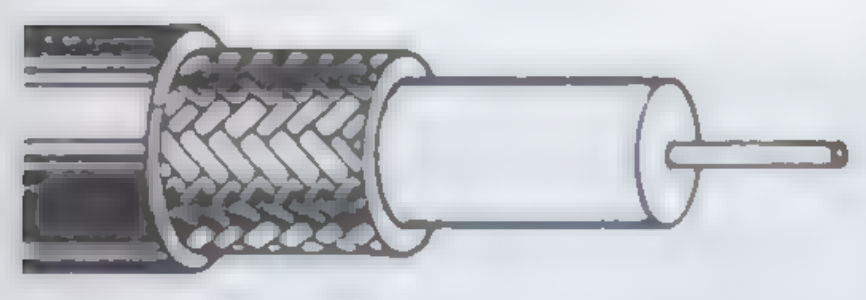
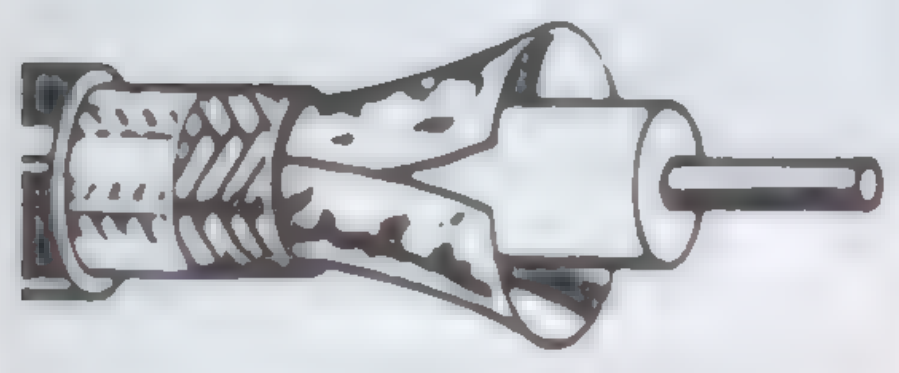
Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 **RG-59/U Type**	**9234**[P] 80C	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	12.0 12.6 22.8 23.7	20 (Solid) .032 bare copper covered steel 61.5Ω/M′ 201.8Ω/km	Cellular Poly-ethylene .146	3.71	.225	5.72	Duofoil® + drain 22.5Ω/M′ 73.8Ω/km 100% shield coverage	75 White, black PVC jacket. 100% Sweep Tested 5-300 MHz	78%	17.3	56.8	50 100 200 500 900	1.8 2.6 3.8 6.2 8.4	5.9 8.5 12.5 20.3 27.6
 **RG-59/U Type**	**9145** 80C	U-500◆ 500◆ U-1000◆ 1000◆	U-152.4 152.4 U-304.8 304.8	10.0 10.8 19.0 20.0	20 (Solid) .032 bare copper covered steel 61.5Ω/M′ 201.8Ω/km	Cellular Poly-ethylene .146	3.71	.236	6.0	Duofoil + 20% aluminum braid 100% shield coverage	75 Black PVC jacket. 100% Sweep Tested 5-300 MHz	78%	17.3	56.8	50 100 200 500 900	1.8 2.6 3.8 6.2 8.4	5.9 8.5 12.5 20.3 27.6
 **RG-59/U Type**	**9275** 80C	U-500◆ Black 500◆ Black U-1000◆ White Black 1000◆ Black	U-152.4 152.4 U-304.8 304.8	11.1 11.8 22.3 23.3	20 (Solid) .032 bare copper covered steel 61.5Ω/M′ 201.8Ω/km	Cellular Poly-ethylene .146	3.71	.242	6.15	Duofoil + 40% aluminum braid 17.0Ω/M′ 55.8Ω/km 100% shield coverage	75 Black or white PVC jacket. 100% Sweep Tested 5-450 MHz	78%	17.3	56.8	50 100 200 500 900	1.8 2.6 3.8 6.2 8.4	5.9 8.5 12.5 20.3 27.6
 **RG-59/U Type**	**9276** 80C	1000◆	304.8	40.2	20 (Solid) .032 bare copper covered steel 61.5Ω/M′ 201.8Ω/km	Cellular Poly-ethylene .146	3.71	.240 x .385	6.1 x 9.78	Duofoil + 40% aluminum braid 17.0Ω/M′ 55.8Ω/km 100% shield coverage	75 Black PVC jacket. 100% Sweep Tested 5-450 MHz Messengered—.051″ (1.3mm) galvanized steel messenger.	78%	17.3	56.8	50 100 200 500 900	1.8 2.6 3.8 6.2 8.4	5.9 8.5 12.5 20.3 27.6
 **RG-59/U Type**	**9243** 80C	U-500◆ Black 500◆ Black U-1000◆ White Black 1000◆ Black	U-152.4 152.4 U-304.8 304.8	11.5 12.2 22.0 23.0	20 (Solid) .032 bare copper covered steel 61.5Ω/M′ 201.8Ω/km	Cellular Poly-ethylene .146	3.71	.242	6.15	Duofoil + 67% aluminum braid 14.0Ω/M′ 45.9Ω/km 100% shield coverage	75 Black PVC jacket. White PVC jacket available in U-1000 only. 100% Sweep Tested 5-450 MHz	78%	17.3	56.8	50 100 200 500 900	1.8 2.6 3.8 6.2 8.4	5.9 8.5 12.5 20.3 27.6
 **RG-59/U Type**	**9266** 80C	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	13.3 14.0 25.6 26.4	20 (Solid) .032 bare copper covered steel 61.5Ω/M′ 201.8Ω/km	Cellular Poly-ethylene .146	3.71	.242	6.15	Duofoil + 61% tinned copper braid 6.8Ω/M′ 22.3Ω/km 100% shield coverage	75 Black PVC jacket. 100% Sweep Tested 5-450 MHz	78%	17.3	56.8	50 100 200 500 900	1.8 2.6 3.8 6.2 8.4	5.9 8.5 12.5 20.3 27.6

[P] Belden U.S. Patent 3,927,247, Canadian Patent #875,188.

◆ Spools are one piece, but length may vary ±10% from length shown.

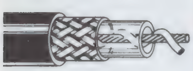
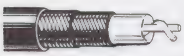
Request quotations of RG/U cables not listed.

MATV Cables

Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			inch	mm	inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 **RG-59/U Type**	**9100** Replaces 9282 80C	U-500♦ Black White Lt. Beige	152.4	11.2	20 (Solid) .032 copper covered steel	Cellular Poly-ethylene .146	3.71	.242	6.15	Duobond II® + 40% aluminum braid 100% shield coverage	75 100% Sweep Tested 5-450 MHz	78%	17.3	56.8	50 100 200 500 900	1.8 2.6 3.8 6.2 8.4	5.9 8.5 12.5 20.3 27.6
		1000♦ Black	304.8	22.3													
		U-1000♦ Black White Lt. Beige	U-304.8	21.3													
		2000♦ Black	609.6	48.2													
 **RG-59/U Type**	**9101** Replaces 9377 80C	1000♦	304.8	40.4	20 (Solid) .032 copper covered steel	Cellular Poly-ethylene .146	3.71	.242 x .385	6.15 x 9.78	Duobond II + 40% aluminum braid 100% shield coverage	75 Black PVC jacket. 100% Sweep Tested 5-450 MHz Messengered—.051″ (1.3 mm) galvanized steel messenger.	78%	17.3	56.8	50 100 200 500 900	1.8 2.6 3.8 6.2 8.4	5.9 8.5 12.5 20.3 27.6
 **RG-59/U Type**	**8212** 80C	U-500♦ 500♦ U-1000♦ 1000♦ 2000♦	U-152.4 152.4 U-304.8 304.8 609.2	15.5 16.3 30.0 30.9 65.5	20 (Solid) .032 bare copper covered steel 34.5Ω/M′ 113.2Ω/km	Cellular Poly-ethylene .146	3.71	.242	6.15	Bare copper braid 2.6Ω/M′ 8.5Ω/km 95% shield coverage	75 Black polyethylene jacket. 100% Sweep Tested 5-450 MHz	78%	17.3	56.8	50 100 200 500 900	1.8 2.6 3.8 6.2 8.4	5.9 8.5 12.5 20.3 27.6
 **RG-59/U Type**	**9274** 80C	500♦ U-1000♦ 1000♦ 2000♦	152.4 U-304.8 304.8 609.6	16.4 30.3 31.2 66.1	20 (Solid) .032 bare copper covered steel 61.5Ω/M′ 201.8Ω/km	Cellular Poly-ethylene .146	3.71	.242	6.15	Bare copper braid 3.5Ω/M′ 11.5Ω/km 95% shield coverage	75 Black PVC jacket. 100% Sweep Tested 5-450 MHz	78%	17.3	56.8	50 100 200 500 900	1.8 2.6 3.8 6.2 8.4	5.9 8.5 12.5 20.3 27.6
 **Flooded Burial Cable RG-59/U Type**	**9590** 80C	1000♦	304.8	22.2	20 (Solid) .032 copper covered steel 61.5Ω/M′ 201.8Ω/km	Cellular Poly-ethylene .146	3.71	.242	6.15	Duofoil® + 53% aluminum braid + flooding 12.5Ω/M′ 41.0Ω/km 100% shield coverage	75 Black polyethylene jacket. 100% Sweep Tested 5-450 MHz	78%	17.3	56.8	50 100 200 500 900	1.8 2.6 3.8 6.2 8.4	5.9 8.5 12.5 20.3 27.6

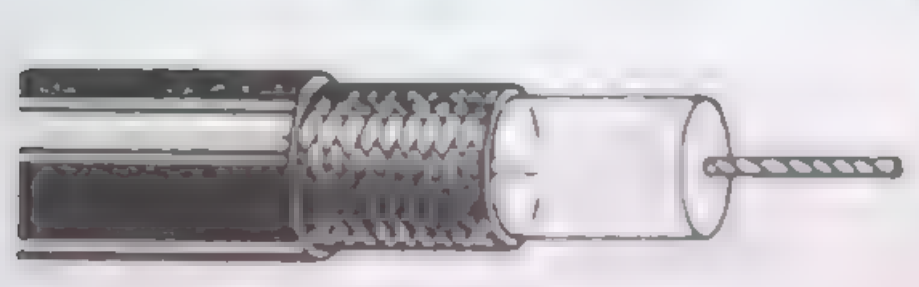
♦ Spools are one piece, but length may vary ±10% from length shown.
Request quotations of RG/U cables not listed.

Broadcast and Computer Cables

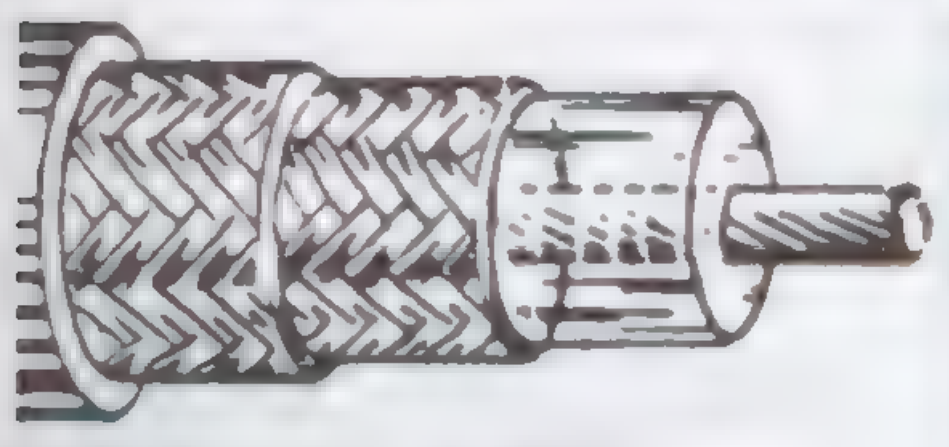
Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 RG-62/U **JAN-C-17A**	**8254** 80C	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	3.9 17.3 18.0 33.6 34.4	22 (Solid) .025 bare copper covered steel 55Ω/M' 180.5Ω/km	Semi-solid Poly-ethylene		.238	6.04	Bare copper 2.6Ω/M' 8.5Ω/km 95% shield coverage	93	84%	13.5	44.3	50 100 200 400 700 900 1000	1.9 2.7 3.8 5.4 7.3 8.3 8.7	6.2 8.9 12.5 17.7 24.0 27.2 28.5
						.146	3.71				Black PVC jacket.						
 **RG-62B/U** **MIL-C-17D**	**8255†** UL 1354 60C	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	17.8 18.5 34.6 35.6	24 (7x32) .025 bare copper covered steel 53.4Ω/M' 175.2Ω/km	Semi-solid Poly-ethylene		.242	6.15	Bare copper 2.6Ω/M' 8.5Ω/km 95% shield coverage	93	84%	13.5	44.3	50 100 200 400 700 900 1000	2.0 2.9 4.2 6.1 8.6 10.1 11.0	6.6 9.5 13.8 20.0 28.2 33.1 36.1
						.146	3.71				Black non-contaminating PVC jacket.						
 RG-62A/U Type	**9268†** UL 1478 60C	U-500 500 U-1000 1000 2000	U-152.4 152.4 U-304.8 304.8 609.6	20.2 20.9 39.1 41.5 82.4	22 (Solid) .025 bare copper covered steel 41.2Ω/M' 135.2Ω/km	Semi-solid Poly-ethylene		.260	6.60	Bare copper 2.6Ω/M' 8.5Ω/km 95% shield coverage	93	84%	13.5	44.3	50 100 200 400 700 900 1000	1.9 2.7 3.8 5.4 7.3 8.3 8.7	6.2 8.9 12.5 17.7 24.0 27.2 28.5
						.146	3.71				Black PVC jacket.						
 RG-62A/U Type	**9269†** UL 1478 60C	100 250 U-500 500 U-1000 1000 2000 5000	30.5 76.2 U-152.4 152.4 U-304.8 304.8 609.6 1524.0	4.0 9.0 17.9 18.5 34.7 35.6 74.9 182.3	22 (Solid) .025 bare copper covered steel 41.2Ω/M' 135.2Ω/km	Semi-solid Poly-ethylene		.242	6.15	Bare copper 2.6Ω/M' 8.5Ω/km 95% shield coverage	93	84%	13.5	44.3	50 100 200 400 700 900 1000	1.9 2.7 3.8 5.4 7.3 8.3 8.7	6.2 8.9 12.5 17.7 24.0 27.2 28.5
						.146	3.71				Black PVC jacket. **For Plenum version, see 89269 on page 132.**						
 MIL-C-17F **M17/30-RG62** **QPL**	**9862†** UL 1354 60C	U-500 500 U-1000 1000 2000	U-152.4 152.4 U-304.8 304.8 609.6	17.4 17.0 33.5 34.5 72.5	22 (Solid) .025 bare copper covered steel 41.2Ω/M' 135.2Ω/km	Semi-solid Poly-ethylene		.242	6.15	Bare copper 2.6Ω/M' 8.5Ω/km 95% shield coverage	93	84%	13.5	44.3	50 100 200 400 700 900 1000	1.9 2.7 3.8 5.4 7.4 8.8 9.4	6.2 8.9 12.5 17.7 24.0 27.2 28.5
						.146	3.71				Black non-contaminating PVC jacket.						
 RG-62A/U Type	**9228** 80C **Flooded Direct Burial**	500 1000 2000 5000	152.4 304.8 609.6 1524.0	18.5 35.5 74.3 184.0	22 (Solid) .025 bare copper covered steel 41.2Ω/M' 135.2Ω/km	Semi-solid Poly-ethylene		.242	6.15	Bare copper 2.6Ω/M' 8.5Ω/km 95% shield coverage	93	84%	13.5	44.3	50 100 200 400 700 900 1000	1.9 2.7 3.8 5.4 7.3 8.3 8.7	6.2 8.9 12.5 17.7 24.0 27.2 28.5
						.146	3.71				Black high density polyethylene jacket. Flooded Direct Burial.						
 **MIL-C-17F** **M17/90-RG71** **QPL**	**9169** 80C	500 1000	152.4 304.8	25.0 46.0	22 (Solid) .025 bare copper covered steel 41.2Ω/M' 135.2Ω/km	Semi-solid Poly-ethylene		.245	6.22	2—1 bare copper 1 tinned copper each shield 95% coverage	93	84%	13.5	44.3	50 100 200 400 700 900 1000	1.9 2.7 3.8 5.4 7.3 8.3 8.7	6.2 8.9 12.5 17.7 24.0 27.2 28.5
						.146	3.71				Black polyethylene jacket.						

†Passes the VW-1 Vertical Wire Flame Test.
Request quotations of RG/U cables not listed.

Broadcast and Computer Cables

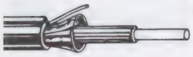
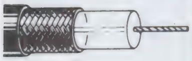
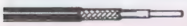
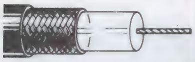
Description	Trade & U.L. Type Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D. Inch	Insulation & Nominal Core O.D. mm	Nominal O.D. inch	Nominal O.D. mm	No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance pF/ft.	Nominal Capacitance pF/m	Nominal Attenuation MHz	Nominal Attenuation db/100 ft.	Nominal Attenuation db/100 m
 **MIL-C-17F M17/157-00001 (RG122/U) QPL**	**9252** 1354 60C	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	2.1 9.7 9.4 18.4 19.0	22 (27x36) .028 tinned copper 17.1Ω/M′ 56.1Ω/km	Poly-ethylene .096	2.44	.160	4.06	Tinned copper 5.2Ω/M′ 17.1Ω/km 97% shield coverage	50 Black non-contaminating PVC jacket.	66%	30.8	101.0	50 100 200 400 700 900 1000	4.5 7.0 10.0 15.2 21.2 25.0 26.5	14.8 23.0 32.8 49.9 69.6 82.0 87.0
 RG-174/U MIL-C-17D	**8216** 1354 60C	100 500 1000	30.5 152.4 304.8	.8 4.4 8.1	26 (7x34) .019 bare copper covered steel 97Ω/M′ 318.3Ω/km	Poly-ethylene .060	1.52	.101	2.56	Tinned copper 10.3Ω/M′ 33.8Ω/km 88% shield coverage	50 Black PVC jacket.	66%	30.8	101.0	50 100 200 400 700 900 1000	6.6 8.9 12.0 17.5 24.1 28.2 30.0	21.7 29.2 39.4 57.4 79.1 92.5 98.4

Broadcast Cables

Description	Trade & U.L. Type Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D. Inch	Insulation & Nominal Core O.D. mm	Nominal O.D. inch	Nominal O.D. mm	No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance pF/ft.	Nominal Capacitance pF/m	Nominal Attenuation MHz	Nominal Attenuation db/100 ft.	Nominal Attenuation db/100 m
 RG-213/U MIL-C-17D	**8267†** 1354 60C	500 1000	152.4 304.8	55.0 108.0	13 (7x21) .089 bare copper 1.87Ω/M′ 6.1Ω/km	Poly-ethylene .285	7.24	.405	10.29	Bare copper 1.2Ω/M′ 3.9Ω/km 97% shield coverage	50 Black non-contaminating PVC jacket.	66%	30.8	101.0	50 100 200 400 700 900 1000 4000	1.6 2.2 3.2 4.7 6.9 8.0 8.9 21.5	5.2 7.2 10.5 15.4 22.6 26.3 29.2 70.5
 **MIL-C-17F M17/164-00001 (RG214/U) QPL**	**8268†** 1354 60C	500 1000	152.4 304.8	67.5 133.0	13 (7x.0296) .089 silver coated copper 1.73Ω/M′ 5.7Ω/km	Poly-ethylene .285	7.24	.425	10.80	2 silver coated copper .7Ω/M′ 2.3Ω/km 98% shield coverage	50 Black non-contaminating PVC jacket.	66%	30.8	101.0	50 100 200 400 700 900 1000 4000	1.6 2.2 3.2 4.7 6.9 8.0 8.9 21.5	5.2 7.2 10.5 15.4 22.6 26.3 29.2 70.5
 MIL-C-17F M17/167-00001 (RG223/U) QPL	**9273** 1354 60C	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	3.9 18.5 19.1 35.9 36.7	19 (Solid) .035 silver coated copper 8.05Ω/M′ 26.4Ω/km	Poly-ethylene .116	2.95	.212	5.38	2 silver coated copper 2.5Ω/M′ 8.3Ω/km 97% shield coverage	50 Black non-contaminating PVC jacket.	66%	30.8	101.0	50 100 200 400 700 900 1000	3.1 4.5 6.4 9.2 12.5 14.3 16.3	10.1 14.8 21.0 30.2 41.0 46.9 53.5

†Passes the VW-1 Vertical Wire Flame Test.
Request quotations of RG/U cables not listed.

Miniature

Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 **Computer Cable**	**9393†** ЯU 1354 60C	100 500 1000	30.5 152.4 304.8	.5 2.9 5.1	30 (Solid) coated copper .010 114.0Ω/M′ 374.0Ω/km	Cellular Poly-ethylene .064	1.63	.100 x .115	2.54 x 2.92	Beldfoil® & drain wire 48Ω/M′ 157.5Ω/km 100% shield coverage	93 Red PVC jacket.	78%	14.0	45.9	50 100 200 400	6.4 8.8 12.4 17.5	21.0 28.9 40.7 57.4
	**9221** ЯU 1375 30V 60C	25 100 U-500 500	7.6 30.5 U-152.4 152.4	.2 1.0 4.0 3.5	30 (7x38) .012 tinned copper 100.0Ω/M′ 328.0Ω/km	Cellular Poly-propylene .058	1.47	.097	2.46	Tinned copper 11.7Ω/M′ 38.4Ω/km 89% shield coverage	75 Black PVC jacket.	78%	17.3	56.7	50 100 200 400 700 900 1000	5.9 9.2 15.0 24.5 36.0 44.0 48.0	19.4 30.2 49.2 80.4 118.1 144.4 157.5
	**8700†** 105C	250	76.2	.7	28 (Solid) .013 tinned copper 68.5Ω/M′ 224.7Ω/km	Poly-propylene .023	.58	.054	1.37	Bare copper 30.0Ω/M′ 98.4Ω/km 91% shield coverage	32 Black PVC jacket.	66%	48.0	157.5	400	55.0	180.5
	**8218** ЯU 1354 60C	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	1.6 7.3 7.0 13.6 14.2	27 (7x35) .017 bare copper covered steel 112.0Ω/M′ 367.5Ω/km	Poly-ethylene .100	2.54	.150	3.81	Tinned copper 6.5Ω/M′ 21.3Ω/km 93% shield coverage	75 Black PVC jacket.	66%	20.5	67.3	50 100 200 400 700 900 1000	4.2 5.7 8.3 12.1 16.5 19.0 20.0	13.8 18.7 27.2 39.7 54.1 62.3 65.6

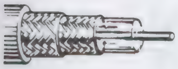
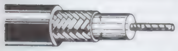
†Passes the VW-1 Vertical Wire Flame Test.
Request quotations of RG/U cables not listed.

75 ohm Precision Video Cables

The 9231 is a precision 75 ohm Video cable manufactured with rigid control of concentricity and all dimensional tolerances offering superior return loss characteristics, a quality Video transmission cable which provides exceptional picture definition and eliminates problems resulting from periodicity. It has a non-contaminating PVC jacket for more flexibility. The double braid 8281 75 ohm Video cable is made to tight tolerances for excellent return loss performance. Our 8279 miniature 75 ohm Video cable is for applications where space is critical. The gray PVC and black polyethylene jackets are made of non-contaminating, non-migratory compounds.

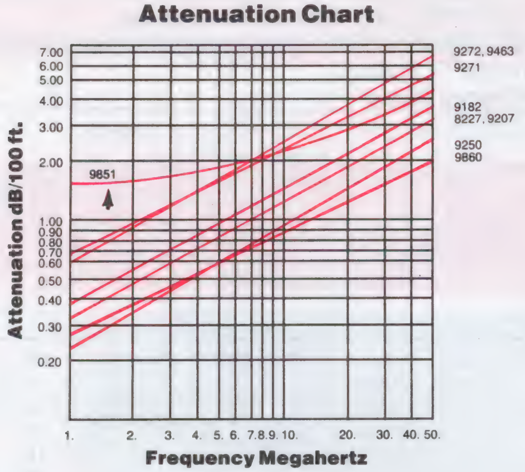
Typical Application: Video signal transmission in Color and Monochrome TV studios.

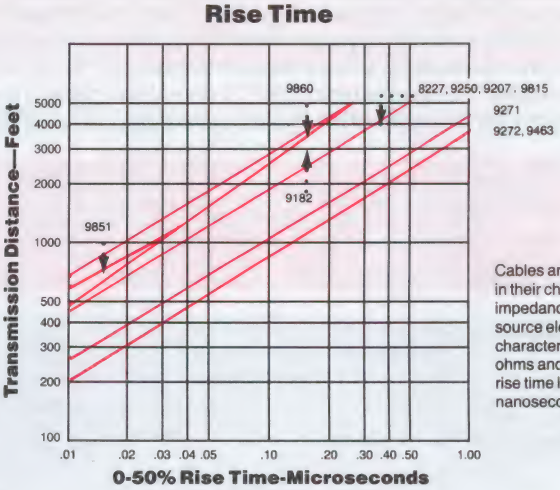
100% Sweep Tested.

Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
	9231⊖† 60C	500 1000	152.4 304.8	37.4 76.0	20 (Solid) .031 bare copper 9.9Ω/M′ 32.5Ω/km	Polyethylene .198	5.03	.304	7.72	Tinned copper double braid 1.06Ω/M′ 3.5Ω/km 98% shield coverage	75 Gray non-contaminating PVC jacket.	66%	21	69.0	.01 .1 1 4.5 10 100	.06 .08 .25 .45 .78 2.70	.2 .3 .8 1.5 2.6 8.9
	**8281**⊖ 80C	500 1000	152.4 304.8	36.1 73.5	20 (Solid) .031 bare copper 9.9Ω/M′ 32.5Ω/km	Polyethylene .198	5.03	.304	7.72	Tinned copper double braid 1.06Ω/M′ 3.5Ω/km 96% shield coverage	75 Black polyethylene jacket. **For Plenum version, see 88281 on page 132.**	66%	21	69.0	.01 .1 1 4.5 10 100	.06 .08 .25 .45 .78 2.70	.2 .3 .8 1.5 2.6 8.9
	9141 80C	1000 1500	304.8 457.2	73.6 110.9	20 (Solid) .032 bare copper 9.9Ω/M′ 32.5Ω/km	Polyethylene .200	5.08	.305	7.75	Tinned copper double braid 1.06Ω/M′ 3.5Ω/km 99% shield coverage	76 Clear polyethylene jacket. (For indoor use only.)	66%	20	65.6	.01 .1 1 4.5 10 100	.06 .08 .25 .45 .78 2.70	.2 .3 .8 1.5 2.6 8.9
	**8279**⊖ 80C	100 250 500 1000	30.5 76.2 152.4 304.8	3.1 7.5 14.7 27.9	23 (7x32) .023 bare compacted copper 19.1Ω/M′ 62.7Ω/km	Polyethylene .146	3.71	.220	5.59	Tinned copper 96% shield coverage 4.5Ω/M′ 14.8Ω/km	75 Black polyethylene jacket. Compacted conductor combines impedance uniformity of solid conductor and "knick-resistance" of stranded conductor.	66%	21	69.0	.01 .1 1 4.5 10 100	.14 .15 .35 .80 1.30 4.98	.5 .5 1.1 2.6 4.3 16.3
	9209 80C	U-500 U-1000	U-152.4 U-304.8	14.2 27.1	23 (7x32) .023 bare compacted copper 19.1Ω/M′ 62.7Ω/km	Polyethylene .146	3.71	.220	5.59	100% Duofoil® + 96% tinned copper 4.5Ω/M′ 14.8Ω/km	75 Black polyethylene jacket. Compacted conductor combines impedance uniformity of solid conductor and "knick-resistance" of stranded conductor.	66%	21	69.0	.01 .1 1 4.5 10 100	.14 .15 .35 .80 1.30 4.98	.5 .5 1.1 2.6 4.3 16.3
	8299	Pkg. wt. ea. .3 lbs.			For use on 9231, 8281 and 9141. Adapter for use with PI-259 connector, 25 in box.												

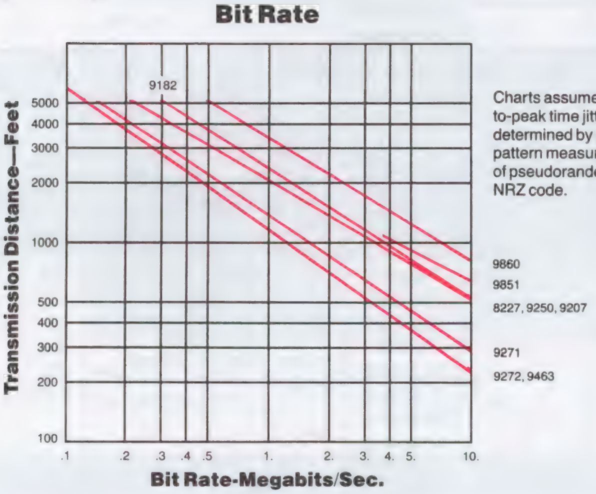
†Passes the VW-1 Vertical Wire Flame Test.
⊖Request Technical Data Bulletin T/8-17 for connector information.
Request quotations of RG/U cables not listed.

Twinaxial transmission line cables offer low-loss signal transmission which remains unaffected by outside signals or noise fields. Recommended for RF applications requiring a cross-talk free, balanced operation.

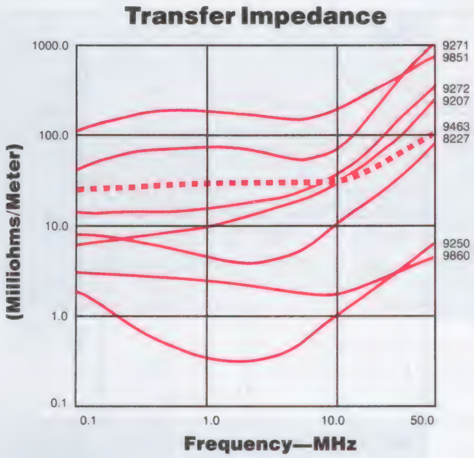

Attenuation Chart


Rise Time

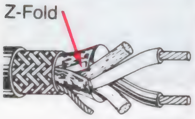
Cables are terminated in their characteristic impedance. Signal source electrical characteristics: 50 ohms and 10% to 90% rise time less than 5 nanoseconds.


Bit Rate

Charts assume 5% peak-to-peak time jitter as determined by eye pattern measurements of pseudorandom NRZ code.


Transfer Impedance

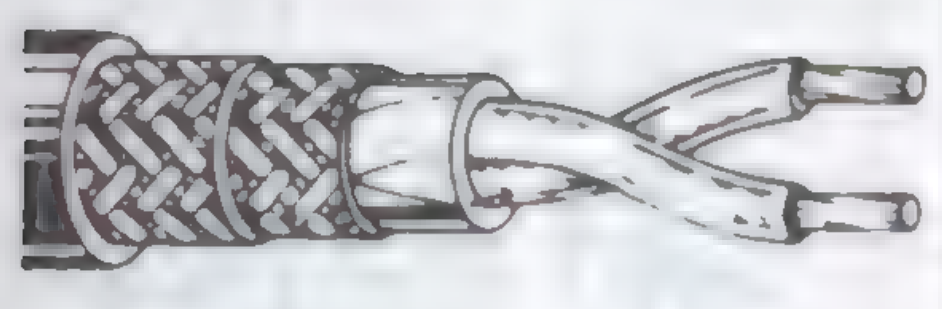
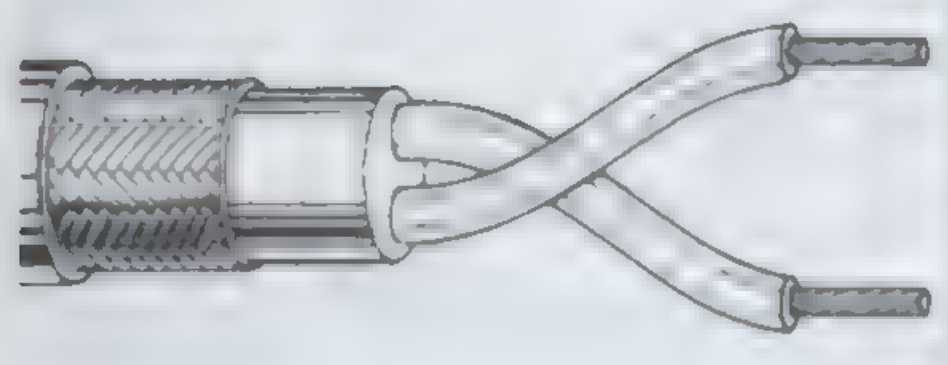
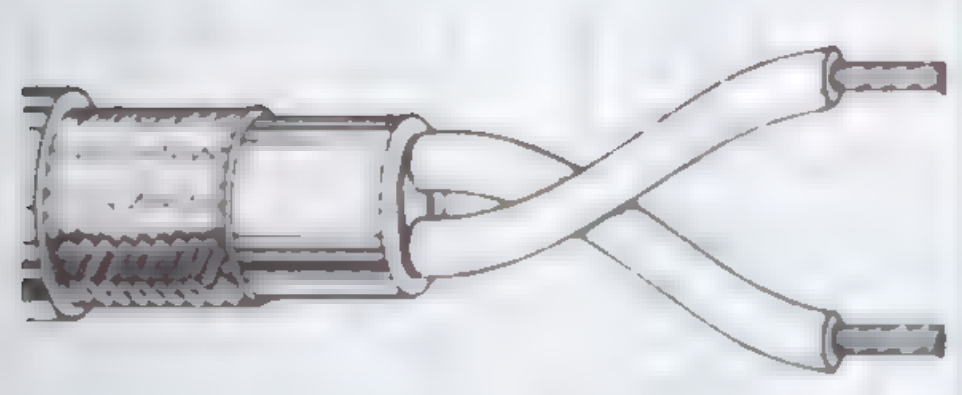
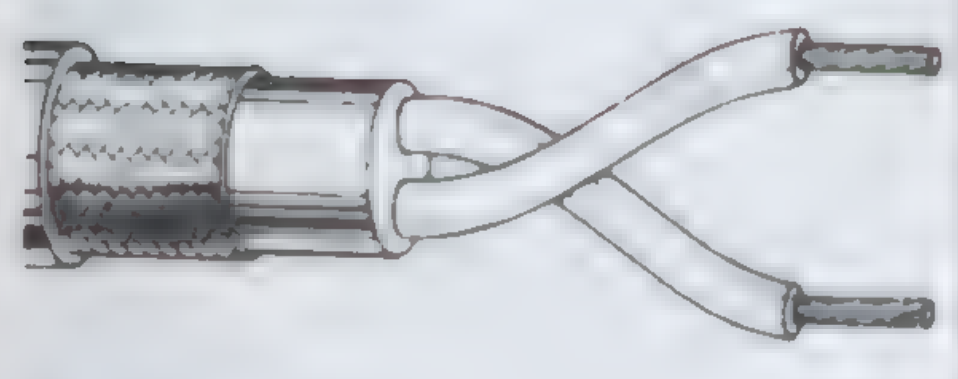
Broadcast and Computer Cables

Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
	9272† UL 2092 300V 60C	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	4.3 19.3 20.0 37.6 38.6	20 (7x28) .037 tinned copper 9.5Ω/M′ 31.2Ω/km	Poly- ethylene color coded clear blue		.242	6.15	Tinned copper 3.4Ω/M′ 11.15Ω/km 93% shield coverage	78 Blue PVC jacket. **For Plenum version, see 89272 on page 133.**	66%	19.7	64.6	1 10 20 50 100 200 400	.6 2.1 3.0 5.0 7.5 11.0 16.0	2.0 6.9 9.8 16.4 24.6 36.1 52.5
Z-Fold 	**9463†** UL 2582 150V 60C	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	3.9 17.8 18.6 34.8 35.8	2 cond. 20 (7x28) .038 tinned copper 9.5Ω/M′ 31.2Ω/km	Poly- ethylene color coded clear blue		.243	6.17	Beldfoil® + 57% tinned copper braid 4.05Ω/M′ 13.29Ω/km 100% shield coverage	78 Blue PVC jacket.	66%	19.7	64.6	1 10 20 50 100 200 400	.6 2.1 2.5 3.6 7.5 11.0 16.0	2.0 6.9 8.2 11.8 24.6 36.1 52.5

†Passes the VW-1 Vertical Wire Flame Test.

Twinaxial

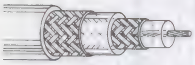
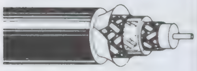
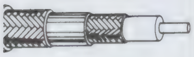
Broadcast and Computer Cables

Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. In In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 **22B/U Type**	**9250†** 80C	100 500 1000	30.5 152.4 304.8	14.0 66.7 131.3	2 Cond. 18 (7x.0152) .0456 bare copper, one conductor has tinned center strand 6.55Ω/M' 21.5Ω/km	Polyethylene .285	7.24	.420	10.67	2 tinned copper .88Ω/M' 2.9Ω/km 96% shield coverage	95 Black non-contaminating PVC jacket.	66%	16.0	52.5	1 10 20 50 100 200 400	.3 .9 1.3 2.1 3.0 4.5 6.3	.98 3.0 4.3 6.9 9.8 14.8 20.7
	**8227†** ЯU 2498 300V 80C	500 1000 2000	152.4 304.8 609.6	31.2 66.1 129.2	20 (7x28) .037 1 tinned copper 1 bare copper 9.46Ω/M' 31.04Ω/km	Polyethylene .236	5.99	.328	8.33	Tinned copper 2.7Ω/M' 8.86Ω/km 85% shield coverage	100 Black PVC jacket.	66%	15.5	50.9	1 10 20 50 100 200 400	.4 1.1 1.5 2.5 4.1 6.4 10.2	1.3 3.6 4.9 8.2 13.5 21.0 33.5
	**9207†** ЯU 2498 300V 80C	100 U-500 500 1000 2000	30.5 U-152.4 152.4 304.8 609.6	7.1 33.4 34.2 72.2 141.5	20 (7x28) .037 1 tinned copper 1 bare copper 9.46Ω/M' 31.04Ω/km	Polyethylene .240	6.10	.330	8.38	Tinned copper 2.0Ω/M' 6.56Ω/km 95% shield coverage	100 Black PVC jacket. **For Plenum version, see 89207 on page 133.**	66%	15.5	50.9	1 10 20 50 100 200 400	.4 1.1 1.5 2.5 4.1 6.4 10.2	1.3 3.6 4.9 8.2 13.5 21.0 33.5
	**New 9815** **Direct Burial**	100 U-500 500 1000 2000	30.5 U-152.4 152.4 304.8 609.6	7.1 32.9 33.8 71.0 138.9	20 (7x28) .037 1 tinned copper 1 bare copper 9.46Ω/M' 31.04Ω/km	Polyethylene .236	5.99	.330	8.38	Tinned copper 2.0Ω/M' 6.56Ω/km 95% shield coverage	100 Black high-density polyethylene jacket.	66%	15.5	50.9	1 10 20 50 100 200 400	.4 1.1 1.5 2.5 4.1 6.4 10.2	1.3 3.6 4.9 8.2 13.5 21.0 33.5
Shorting Fold 	**9271** ЯU 2092 300V 60C	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	3.0 13.6 14.2 26.1 27.0	2 Cond. 25 (7x33) .021 tinned copper 31.8Ω/M' 104.3Ω/km	Polyethylene color coded clear blue		.240	6.10	Beldfoil® w/stranded tinned copper drain wire 12.0Ω/M' 39.4Ω/km 100% shield coverage	124 Blue PVC jacket.	66%	12.2	40.0	1 10 20 50 100 200 400	.6 1.7 2.3 3.6 5.0 6.9 9.6	2.0 5.6 7.6 11.8 16.4 22.6 31.5
	9860† ЯU 2448 30V 60C	500 1000 2000	152.4 304.8 609.6	54.2 106.3 213.6	2 Cond. 16 (Solid) .051 bare copper 4.2Ω/M' 13.8Ω/km	Cellular Polyethylene color coded clear blue		.440	11.18	Duofoil® + 92% tinned copper braid, 1.3Ω/M' 4.3Ω/km 100% shield coverage	124 Black PVC jacket.	78%	Between Cond. 10.9 Shield ungrn'd.	35.8	1 10 20 50 100 200	.27 .89 1.3 2.0 2.9 4.1	.89 2.9 4.3 6.6 9.5 13.5
	9182† ЯU 2668 30V 60C	U-500 500 1000	U-152.4 152.4 304.8	25.8 27.5 57.5	22 (19x34) .031 tinned copper 15Ω/M' 49.2Ω/km	Datalene® color coded black, yellow		.350	8.89	Duofoil w/stranded tinned copper drain wire 6.3Ω/M' 20.7Ω/km 100% shield coverage	150 Black PVC jacket. **For Plenum version, see 89182 on page 129.**	78%	8.8	28.9	1 10 20 50 100 200 400	.3 1.3 2.3 3.0 4.3 6.2 8.8	.98 4.3 7.5 9.8 14.1 20.3 28.9
Shorting Fold 	**9851†** ЯU 2777 300V 60C	100 500 1000	30.5 152.4 304.8	2.3 10.2 19.0	2 Cond. 29 (Solid) .0113 silver plated copper covered steel 202Ω/M' 622Ω/km	Flame Retardant Cellular Polyethylene color coded clear, blue		.245	6.22	With stranded tinned copper drain wire 25Ω/M' 82Ω/km 100% shield coverage	200 Chrome PVC jacket.	76%	6.7	22.0	1 10 20 50 100 200 400	1.7 2.1 2.7 4.0	

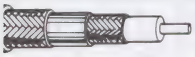
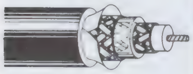
†Passes the VW-1 Vertical Wire Flame Test.
Request quotations of RG/U cables not listed.

Triaxial

Broadcast Cables

Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 **RG-58A/U Type** Triax Cable	**9222** 80C	100 U-500 500	30.5 U-152.4 152.4	4.5 19.6 20.4	20 (7x28) .037 tinned copper 9.46Ω/M′ 31.04Ω/km	Poly-ethylene .114	2.90	.240	6.10	2 tinned copper Inner 4.73Ω/M′ 15.5Ω/km Outer 4.30Ω/M′ 14.1Ω/km 96% shield coverage	50 Polyethylene insulation between braids. Yellow PVC jacket.	66%	30.8	101.0	50 100 200 400 700 900 1000	3.3 4.9 7.2 12.0 18.0 22.0 24.0	10.8 16.1 23.6 39.4 59.1 72.2 78.7
 **RG-59/U Type** Triax Cable	**9267**† 80C	100 500 1000	30.5 152.4 304.8	8.6 41.2 86.0	20 (Solid) .033 bare copper 10.1Ω/M′ 33.1Ω/km	Cellular Poly-ethylene 1.46	3.71	.360	9.14	2 bare copper Inner 2.54Ω/M′ 8.3Ω/km Outer 2.82Ω/M′ 8.6Ω/km 96% shield coverage	75 Polyethylene insulation between braids. Paper tape separator. Black hypalon jacket.	78%	17.3	56.8	1 50 100 300 400 700 900 1000	0.3 1.8 2.6 4.8 5.6 7.6 8.7 9.2	1.0 2.76 8.5 15.7 18.4 24.9 28.5 30.2
 RG-11/U Type Triax Cable	**9192**† 1641 60C	500 1000	152.4 304.8	81.1 146.0	14 (19x27) .064 bare copper 3.0Ω/M′ 9.84Ω/km	Cellular Poly-ethylene .312	7.92	.520	13.2	2 bare copper Inner 1.55Ω/M′ 5.1Ω/M′ Outer 1.7Ω/M′ 5.58Ω/km 96% shield coverage	75 Polyethylene insulation between braids. Yellow PVC jacket.	78%	17.3	56.8	50 100 200 300 400 700 900 1000	1.0 1.5 2.2 2.8 3.3 4.6 5.4 5.7	3.3 4.9 7.2 9.2 10.8 15.1 17.7 18.7
 **RG-11/U Type** Triax Cable	**8233** 80C	500 1000 2000	152.4 304.8 609.6	63.5 124.0 251.9	14 (Solid) .064 bare copper 2.5Ω/M′ 8.2Ω/km	Cellular Poly-ethylene .285	7.24	.475	12.07	2 bare copper 1.4Ω/M′ 4.59Ω/km Inner 1.5Ω/M′ 4.9Ω/km Outer 1.5Ω/M′ 4.9Ω/km 96% shield coverage	75 Polyethylene insulation between braids. Black polyethylene jacket.	78%	17.3	56.8	50 100 200 300 400 900	1.0 1.5 2.2 2.8 3.3 5.2	3.3 4.9 7.2 9.2 10.8 17.1

Broadcast and Computer Cables

Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 RG-8/U Type Triax Cable	**9888** 80C	500 1000	152.4 304.8	72.8 142.4	11 (7x19) .108 bare copper 1.17Ω/M′ 3.80Ω/km	Cellular Poly-ethylene .285	7.24	.480	12.19	2 bare copper Inner 1.2Ω/M′ 3.9Ω/km Outer 2.1Ω/M′ 6.9Ω/km 96% shield coverage	50 Polyethylene insulation between braids. Black polyethylene jacket.	78%	26.0	85.3	50 100 200 400 700 900 1000	1.2 1.8 2.7 4.2 5.8 6.7 7.1	3.9 5.9 8.9 13.8 19.0 22.0 23.3
 **RG-59/U Type** Triax Cable	**8232** 80C	500 1000 2000	152.4 304.8 609.6	28.4 58.0 118.1	20 (Solid) .032 bare copper covered steel 34.5Ω/M′ 113.2Ω/km	Cellular Poly-ethylene .143	3.63	.315	8.00	2 bare copper 2.6Ω/M′ 8.5Ω/km Inner 2.5Ω/M′ 8.2Ω/km Outer 2.8Ω/M′ 9.2Ω/km 96% shield coverage	75 Polyethylene insulation between braids. Black polyethylene jacket. **For Plenum version, see 88232 on page 132.**	78%	17.3	56.8	50 100 200 300 400 900	1.8 2.6 3.8 4.8 5.6 8.4	5.9 8.5 12.5 15.8 18.4 27.6
 **RG-11/U Type** Triax Cable	**9232**† 1641 30V 60C	500 1000	152.4 304.8	75.0 154.7	14 (19x27) .064 bare copper 3.0Ω/M′ 9.84Ω/km	Cellular Poly-ethylene .312	7.92	.520	13.2	2 bare copper Inner 1.55Ω/M′ 5.1Ω/km Outer 1.7Ω/M′ 5.58Ω/km 96% shield coverage	75 Polyethylene insulation between braids. Paper tape separator. Black hypalon jacket.	78%	17.3	56.8	50 100 200 300 400 700 900 1000	1.0 1.5 2.2 2.8 3.3 4.6 5.4 5.7	3.3 4.9 7.2 9.2 10.8 15.1 17.7 18.7

†Passes the VW-1 Vertical Wire Flame Test.
Request quotations of RG/U cables not listed.

Flat Cable and Connectors

Belden offers one of the most comprehensive lines of Flat Cable available anywhere. The same expertise and design sophistication which made Belden a leader in round cable has now been successfully integrated in flat cable designs.

The cables in this section are organized as follows:

	Page(s)
▪ Standard .050 Pitch Flat Cable	93
▪ Shielded/Jacketed .050 Pitch Flat Cable	94
▪ .050 Pitch High-Flex Flat Cable	95
▪ .050 Pitch Rainbow Cable	96
▪ Peelable Ground Plane Cable	97
▪ .025 Pitch Transmission Line Cable	98
▪ Vari-Twist® Flat Cable	99
▪ Shielded/Jacketed Vari-Twist	100
▪ 50-ohm Ribbon Coax Cable	101
▪ 75-ohm Ribbon Coax Cable	102
▪ 93-ohm Ribbon Coax Cable	103
▪ A&B Flat Cable (combination of Peelable Ground Plane and Vari-Twist cables)	104
▪ Connectors, Accessories and Assembling Tools	105 – 119

Custom Design Center

If you have a new or unusual application or you cannot find cable in this section which meets your technical requirements, contact Belden's Product Engineering Group. Phone 317/983-5200.

Flat Cable Crosstalk Testing

The following is a description of two methods Belden uses to test its flat cable for crosstalk. Because these methods are different, the results may be different even when the same type of cable is used in each test. In short, the reader is offered two different tests to determine which cable type has the best crosstalk. At times, the results of these two test methods do not agree. Therefore, it is best for the reader to determine which method most closely approximates the actual cable application and use the results from this method for cable comparisons.

Unbalanced Crosstalk

The unbalanced crosstalk of flat cables is measured as shown in figure #1. One end of the cable drive is connected through an impedance matching device to a signal generator. The other end of the drive line is terminated in its characteristic impedance. The signal generator is capable of generating square wave pulses of varying leading edge rise times.

A test signal from the signal generator is inserted in the drive line. The cable is connected as follows: Ground-Drive line-Ground-Sample line-Ground or GSG mode. The sample line is also terminated at both ends in its characteristic impedance. The signal at each end of the sample line is measured. The signal at the signal generator end of the sample line is called the near end or reverse crosstalk. The signal at the opposite end of the sample line is called the far end or forward crosstalk. The actual crosstalk figures are given in % and are calculated as follows:

$$\text{Crosstalk in \%} = \frac{\text{Signal in sample line}}{\text{Signal in drive line}} \times 100\%$$

This type of crosstalk test is widely accepted in the flat cable industry. It is a very good method to determine the pulse crosstalk of all types of flat cables connected in the GSG mode. Crosstalk data for Belden flat cables tested using this method is given in the electrical data section of each cable.

Flat Cable and Connectors

Balanced Crosstalk

Twisted pair flat cables are not designed to be connected in the GSG mode. These cables provide a positive crosstalk reduction over non-twisted pair cables when used in the balanced mode. The balanced crosstalk of twisted pair flat cables is measured as shown in figure #2. One end of the cable drive line is connected through a balanced impedance matching transformer to a tracking generator. The other end of the cable drive line is terminated in its characteristic impedance. Both ends of the sample line are terminated in its characteristic impedance of the line. Because impedance matching transformers are used, none of the wires in the drive or sample line share a common ground. The signal in each line is balanced to ground. For example, one wire of the line will carry the inverse of the signal in the other wire in the same line at any given moment. The signal from the tracking generator is a range of frequencies, typically from 10 MHz to 100 MHz. The signal at each end of the sample line is measured in units of dB of isolation using a spectrum analyzer. The crosstalk results of two cables, one with parallel non-twisted conductors (9L Series) and the other with twisted pair conductors (9V Series) is shown in figure #3.

In conclusion, it is not the intent of this section to recommend one type of crosstalk testing over another. Rather, it is intended to demonstrate there are different cable types for the different cable applications. Also there are different cable test methods to simulate the different applications of the cable.

Please choose the crosstalk method which most closely approximates your application.

Balanced Crosstalk

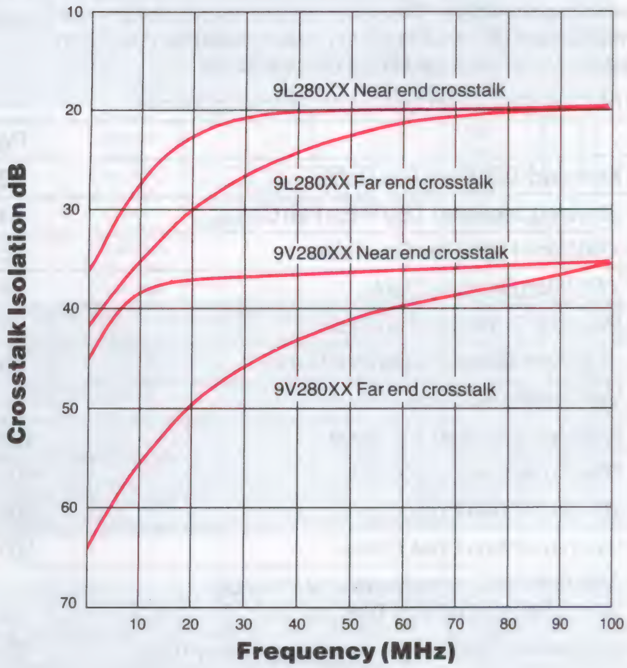


Fig. 3

Unbalanced Near End Crosstalk

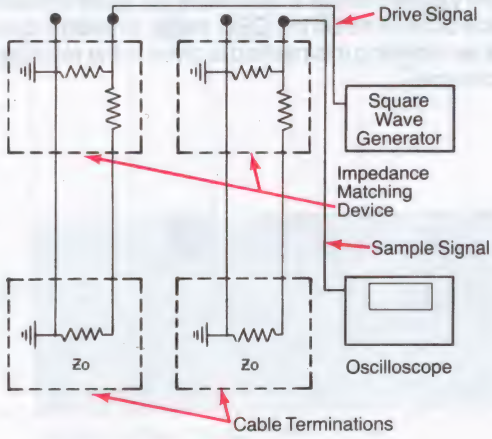


Fig. 1

Balanced Near End Crosstalk

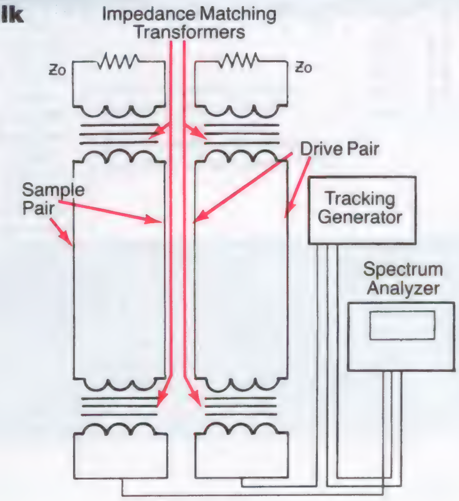


Fig. 2

BELDEN
COOPER INDUSTRIES

.050 Pitch Flat Cable

Computer and Instrumentation
28 Gage

Stranded Conductors (7x36)

Standard Specifications

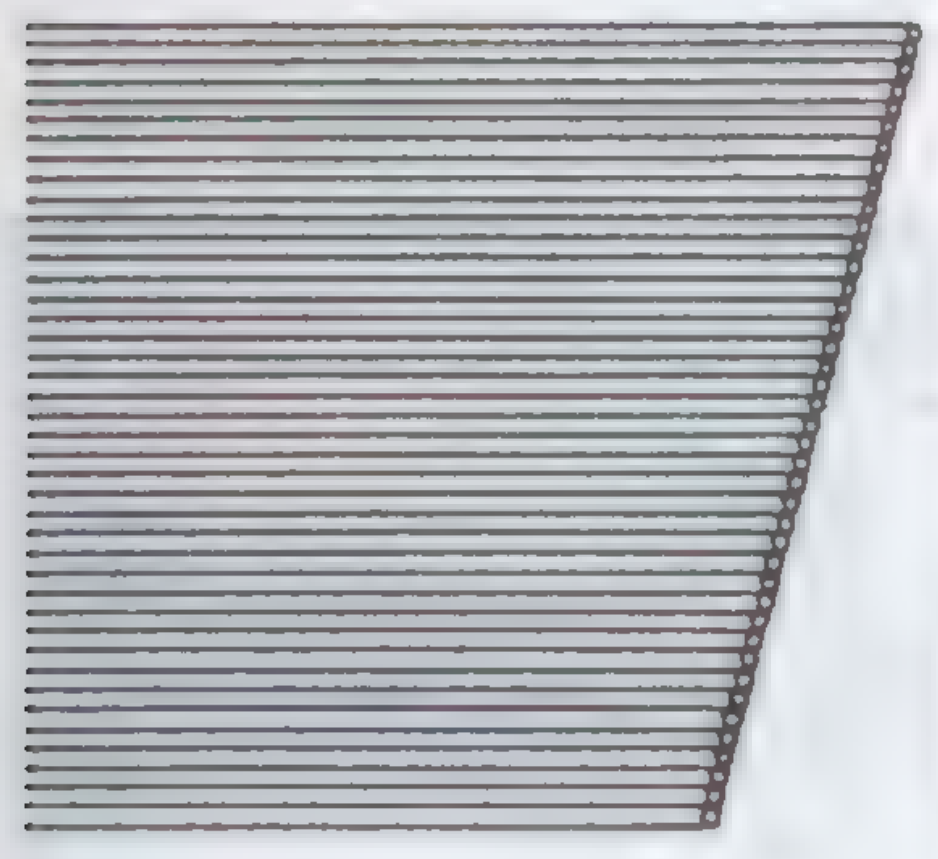
Voltage rating . . . . 300V rms
Dielectric withstand voltage. . . . . 2000V rms
Propagation delay . . . . GSG 1.40 ns/ft. (4.6 ns/M) nom.
Insulation resistance. . . . . 10^3 MΩ (10 ft. sample)

Product Description

Tinned copper (.050 conductor spacing), gray PVC insulation, Red polarity stripe.

For additional gage size and centering options contact your nearest Belden Distributor or Belden Sales Representative.

Will terminate to any standard IDC connector.



UL 2651
300V 105C

Trade Number	Number of Cond.	Standard Lengths		Nominal Width A		Nominal Width B	
		ft.	m	Inch	mm	Inch	mm
9L28010†	10	100 300	30.5 91.4	.50	12.70	.450	11.4
9L28014†	14	100 300	30.5 91.4	.70	17.78	.650	16.5
9L28016†	16	100 300	30.5 91.4	.80	20.32	.750	19.1
9L28020†	20	100 300	30.5 91.4	1.00	25.40	.950	24.1
9L28024†	24	100 300	30.5 91.4	1.20	30.48	1.15	29.2
9L28025†	25	100 300	30.5 91.4	1.25	31.75	1.20	30.5
9L28026†	26	100 300	30.5 91.4	1.30	33.02	1.25	31.8
9L28034†	34	100 300	30.5 91.4	1.70	43.18	1.65	41.9
9L28036†	36	100 300	30.5 91.4	1.80	45.72	1.75	44.5
9L28037†	37	100 300	30.5 91.4	1.85	46.99	1.80	45.7
9L28040†	40	100 300	30.5 91.4	2.00	50.80	1.95	49.5
9L28050†	50	100 300	30.5 91.4	2.50	63.50	2.45	62.2
9L28060†	60	100 300	30.5 91.4	3.00	76.20	2.95	74.9
9L28064†	64	100 300	30.5 91.4	3.20	81.28	3.15	80.0

†Passes the VW-1 Vertical Wire Flame Test.

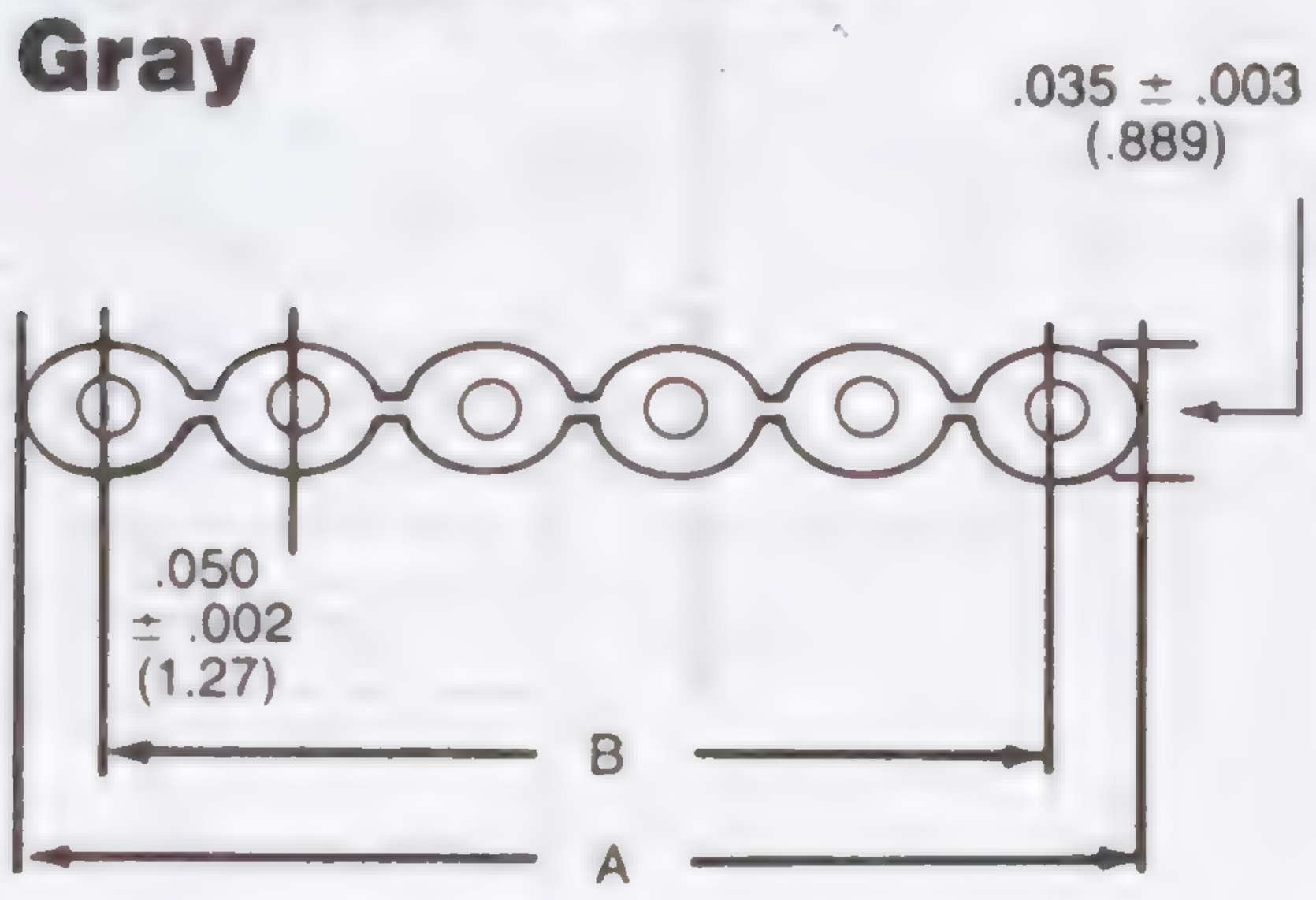
Cable Electrical Specifications

Wire Gage (AWG)	Characteristic Impedance		Nominal Capacitance @ 1 MHz				Inductance @ 1 MHz			
	GS	GSG	GS		GSG		GS		GSG	
	Ω	Ω	pF/ft.	pF/m	pF/ft.	pF/m	µH/ft.	µH/m	µH/ft.	µH/m
#28 Stranded	150	105	10	33	15	49	.29	.95	.20	.66

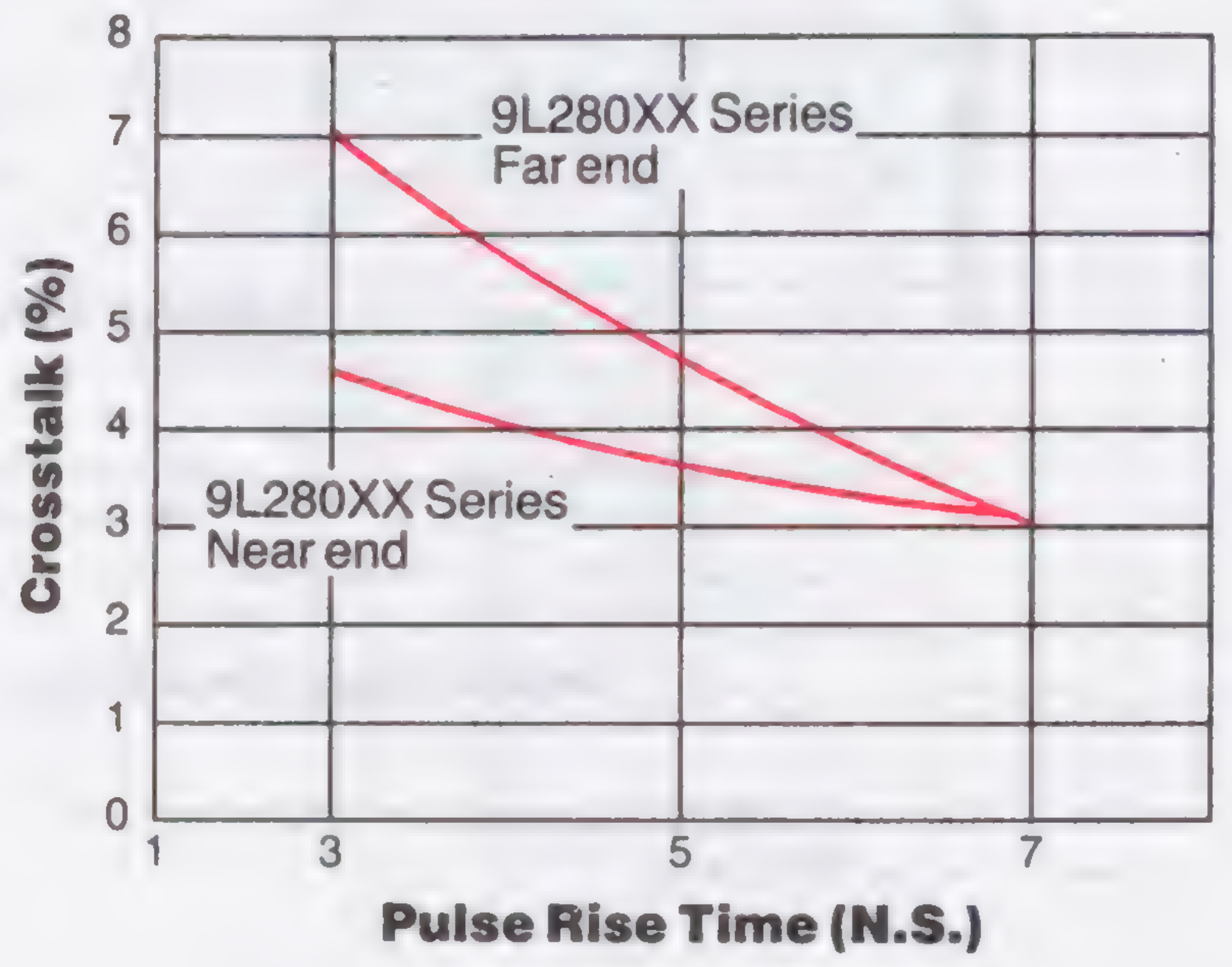
Cable configuration tested: GS = Ground-Signal GSG = Ground-Signal-Ground

Dimensions inch (mm)

9L280XX Series
Gray

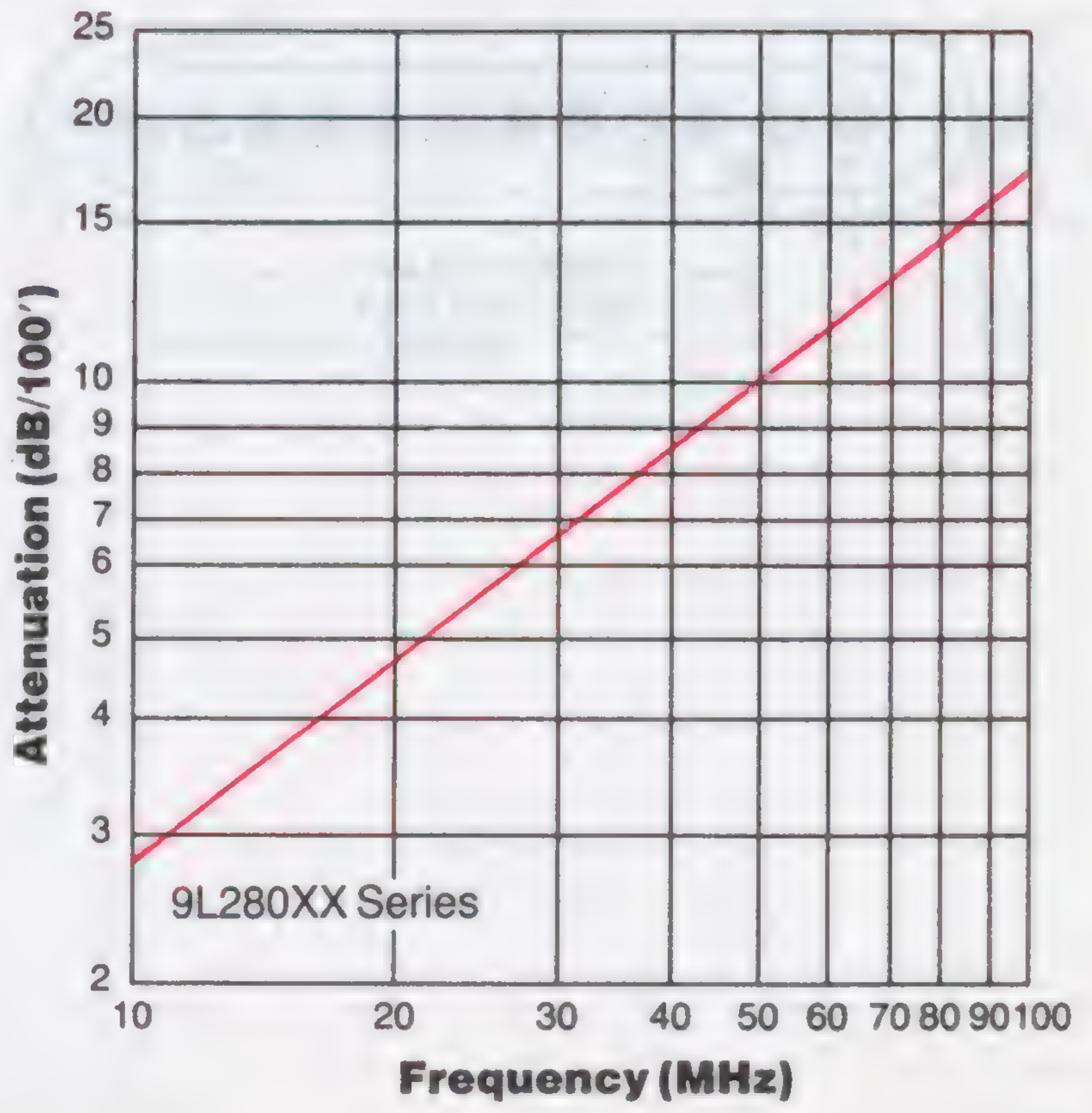


9L Series Typical Unbalanced Crosstalk Results*



*GSG

Attenuation*



.050 Pitch Shielded Jacketed Flat Cable

Computer and Instrumentation
28 Gage

Stranded Conductors (7x36)

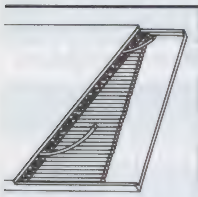
Standard Specifications

Voltage rating.................................... 300V rms
Dielectric withstand voltage........................ 2000V rms
Propagation delay .... 1.7 ns/ft. (5.6 ns/M) nom.
Insulation resistance.................... 10^3 MΩ (10 ft. sample)

Product Description

Tinned copper (.050 conductor spacing), gray PVC insulation, overall Beldfoil® aluminum-polyester shield, two 28 AWG drain wires, black PVC jacket.

Will terminate to any standard IDC connector.



UL 20081
300V 105C

Trade Number	Number of Cond.	Standard Lengths		Jacket Thickness		Nominal Width			
		ft.	m	Inch	mm	A		B	
						Inch	mm	Inch	mm
9L28309†	9	100	30.5	.032	.81	.55	14.0	.400	10.2
9L28310†	10	100	30.5	.032	.81	.60	15.2	.450	11.4
9L28315†	15	100	30.5	.032	.81	.85	21.6	.700	17.8
9L28320†	20	100	30.5	.032	.81	1.10	27.9	.950	24.1
9L28325†	25	100	30.5	.032	.81	1.35	34.3	1.20	30.5
9L28326†	26	100	30.5	.032	.81	1.40	35.6	1.25	31.8
9L28334†	34	100	30.5	.032	.81	1.80	45.7	1.65	41.9
9L28336†	36	100	30.5	.032	.81	1.90	48.3	1.75	44.5
9L28337†	37	100	30.5	.032	.81	1.95	49.5	1.80	45.7
9L28340†	40	100	30.5	.032	.81	2.10	53.3	1.95	49.5
9L28350†	50	100	30.5	.032	.81	2.60	66.0	2.45	62.2
9L28360†	60	100	30.5	.032	.81	3.10	78.7	2.95	74.9
9L28364†	64	100	30.5	.032	.81	3.30	83.8	3.15	80.0

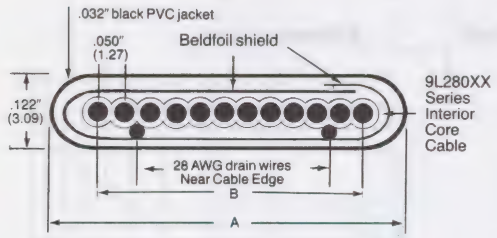
†Passes the VW-1 Vertical Wire Flame Test.

Cable Electrical Specifications

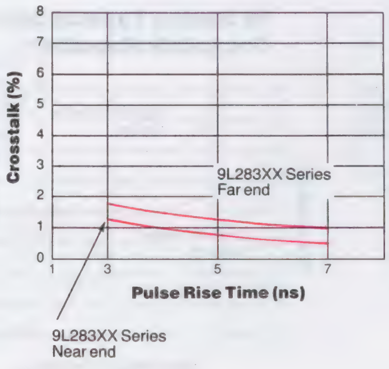
Wire Gage (AWG)	Characteristic Impedance	Nominal Capacitance @ 1 MHz		Inductance @ 1 MHz	
	Ω	pF/ft.	pF/m	μH/ft.	μH/m
#28 Stranded	45	50	164	.11	.36

Cable configuration tested: GSG = Ground-Signal-Ground (with shield grounded)

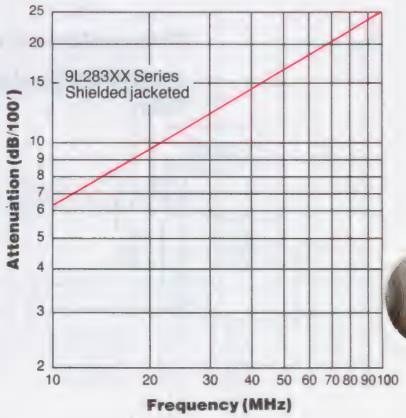
Dimensions inch (mm)


.032" black PVC jacket
.050" (1.27)
Beldfoil shield
.122" (3.09)
9L280XX Series Interior Core Cable
28 AWG drain wires Near Cable Edge
B
A

Typical Unbalanced Crosstalk Results*



Attenuation*



*GSG

.050 Pitch High-Flex Flat Cable

Computer and Instrumentation
28 Gage
Stranded Conductors (19x40)

Standard Specifications

Voltage rating . . . . 300V rms
Dielectric withstand voltage . . . . 2000V rms
Propagation delay . . . . GSG 1.40 ns/ft. (4.6 ns/M) nom.
Insulation resistance . . . . 10^3 MΩ (10 ft. sample)

Product Description

Silver plated copper alloy (.050 conductor spacing), gray PVC insulation. Black polarity stripe.

Will terminate to any standard IDC connector.

ЯU 2651
300V 105C

Trade Number	Number of Cond.	Standard Lengths		Nominal Width			
				A		B	
		ft.	m	Inch	mm	Inch	mm
9F28010†	10	100	30.5	.50	12.7	.450	11.4
9F28014†	14	100	30.5	.70	17.8	.650	16.5
9F28016†	16	100	30.5	.80	20.3	.750	19.1
9F28020†	20	100	30.5	1.00	25.4	.950	24.1
9F28024†	24	100	30.5	1.20	30.5	1.15	29.2
9F28025†	25	100	30.5	1.25	31.8	1.20	30.5
9F28026†	26	100	30.5	1.30	33.0	1.25	31.8
9F28034†	34	100	30.5	1.70	43.2	1.65	41.9
9F28036†	36	100	30.5	1.80	45.7	1.75	44.4
9F28037†	37	100	30.5	1.85	47.0	1.80	45.7
9F28040†	40	100	30.5	2.00	50.8	1.95	49.5
9F28050†	50	100	30.5	2.50	63.5	2.45	62.2
9F28060†	60	100	30.5	3.00	76.2	2.95	74.9
9F28064†	64	100	30.5	3.20	81.3	3.15	80.0

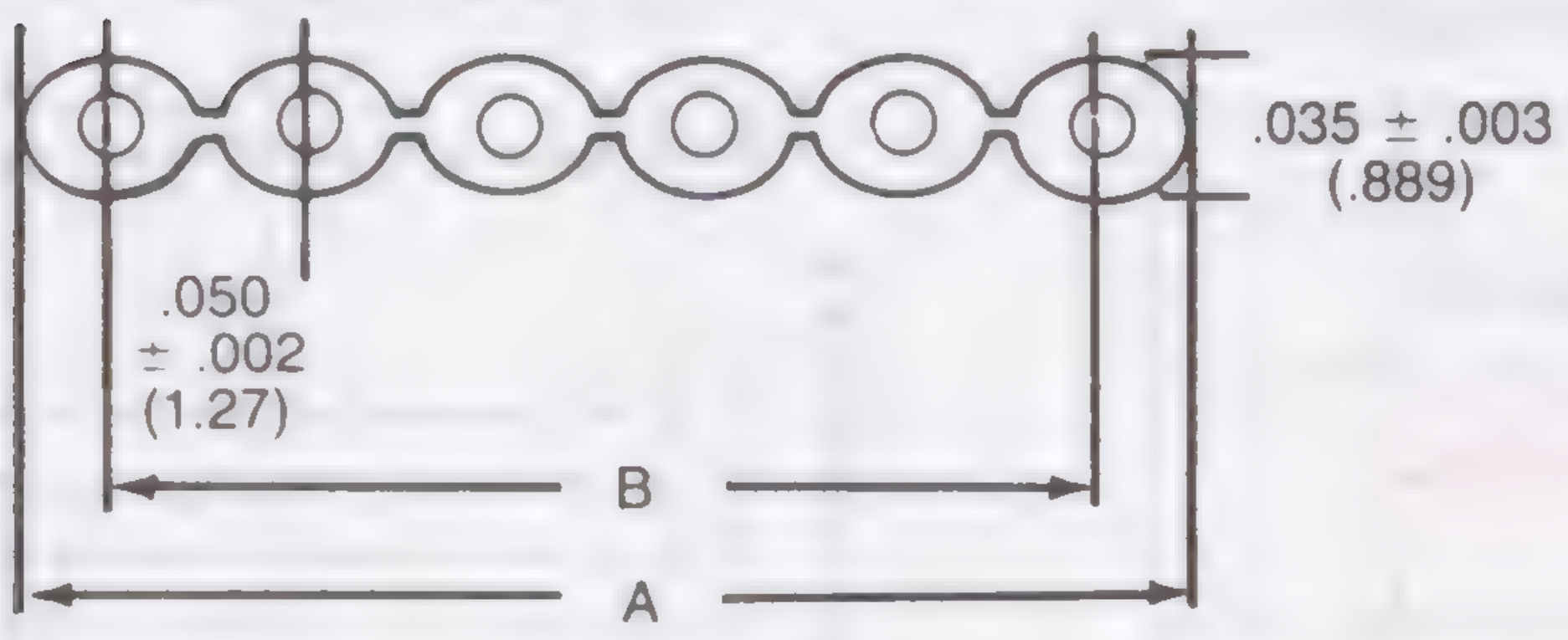
†Passes the VW-1 Vertical Wire Flame Test.

Cable Electrical Specifications

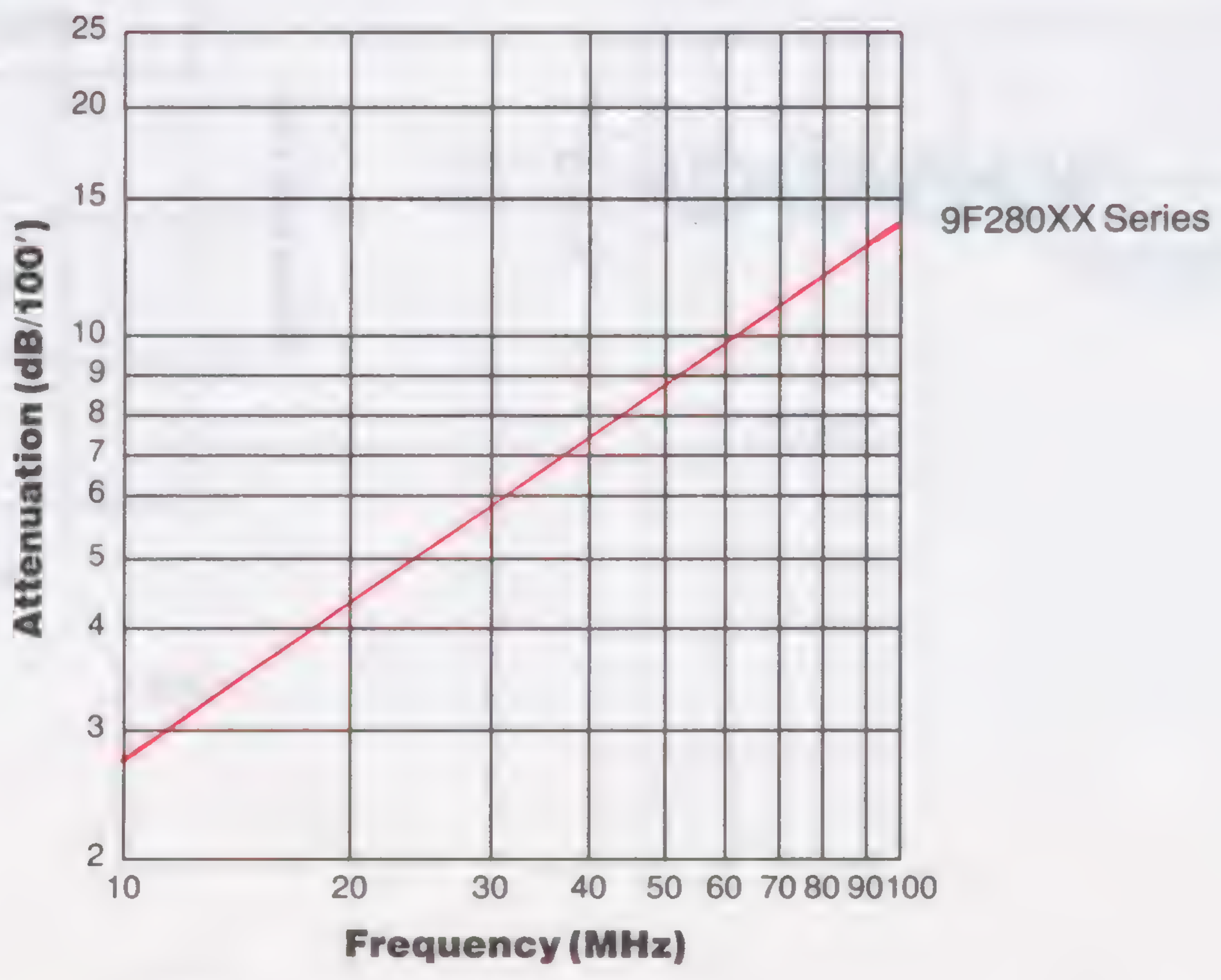
Wire Gage (AWG)	Characteristic Impedance		Nominal Capacitance @ 1 MHz				Inductance @ 1 MHz			
	GS	GSG	GS		GSG		GS		GSG	
	Ω	Ω	pF/ft.	pF/m	pF/ft.	pF/m	µH/ft.	µH/m	µH/ft.	µH/m
#28 Stranded	140	100	12	39	15	49	.20	.66	.14	.46

Cable configuration tested: GS = Ground-Signal GSG = Ground-Signal-Ground.

Dimensions inch (mm)



Attenuation*



*GSG

9R280XX Series

.050 Pitch Rainbow Cable

Computer and Instrumentation
28 Gage
Stranded Conductors (7x36)

Standard Specifications

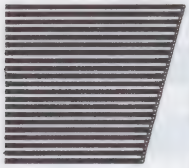
Voltage rating . . . . 300V rms
Dielectric withstand voltage . . . . 2000V rms
Propagation delay . . . . GSG 1.4 ns/ft. (4.6 ns/M) nom.
Insulation resistance . . . . 10^3 MΩ (10 ft. sample)

Product Description

Tinned copper (.050 conductor spacing), PVC preinsulated-laminated to a clear PVC film. Color code: Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White, Black.

For additional gage size and centering options or CSA approval, contact your nearest Belden Distributor or Belden Sales Representative.

Will terminate to any standard IDC connector.



ЯU 2884
300V 105C

Trade Number	Number of Cond.	Standard Lengths		Nominal Width			
				A		B	
		ft.	m	inch	mm	inch	mm
9R28010†	10	100	30.5	.50	12.70	.45	11.4
9R28014†	14	100	30.5	.70	17.78	.65	16.5
9R28016†	16	100	30.5	.80	20.32	.75	19.1
9R28020†	20	100	30.5	1.00	25.40	.95	24.1
9R28024†	24	100	30.5	1.20	30.48	1.15	29.2
9R28025†	25	100	30.5	1.25	31.75	1.20	30.5
9R28026†	26	100	30.5	1.30	33.02	1.25	31.8
9R28034†	34	100	30.5	1.70	43.18	1.65	41.9
9R28036†	36	100	30.5	1.80	45.70	1.75	44.5
9R28037†	37	100	30.5	1.85	46.99	1.80	45.7
9R28040†	40	100	30.5	2.00	50.80	1.95	49.5
9R28050†	50	100	30.5	2.50	63.50	2.45	62.2
9R28060†	60	100	30.5	3.00	76.20	2.95	74.9
9R28064†	64	100	30.5	3.20	81.28	3.15	80.0

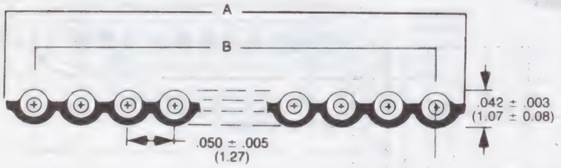
†Passes the VW-1 Vertical Wire Flame Test.

Cable Electrical Specifications

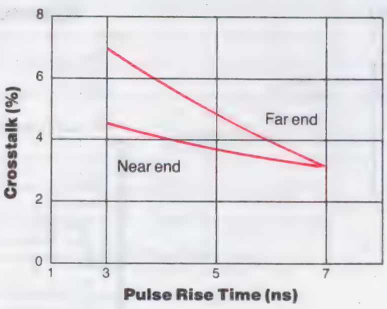
Wire Gage (AWG)	Characteristic Impedance		Nominal Capacitance @ 1 MHz				Inductance @ 1 MHz			
	GS	GSG	GS		GSG		GS		GSG	
	Ω	Ω	pF/ft.	pF/m	pF/ft.	pF/m	μH/ft.	μH/m	μH/ft.	μH/m
#28 Stranded	150	105	10	33	15	49	.29	.95	.20	.66

Cable configuration tested: GS = Ground-Signal GSG = Ground-Signal-Ground

Dimensions inch (mm)

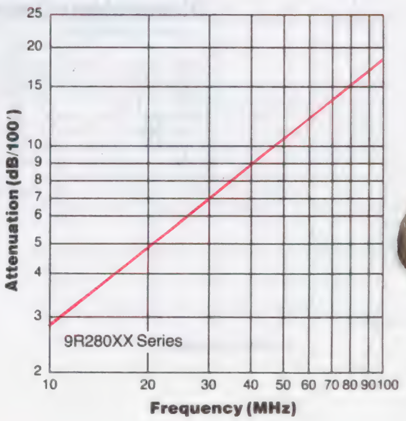


Unbalanced Crosstalk*



*GSG

Attenuation*



.050 Pitch Peelable Ground Plane Cable

Computer and Instrumentation
28 Gage
Stranded Conductors (7x36)

Standard Specifications

Voltage rating	300V rms
Dielectric withstand voltage	2000V rms
Propagation delay	1.6 ns/ft. (5.3 ns/M) nom.
Insulation resistance	10^3 MΩ (10 ft. sample)

Product Description

Tinned copper (.050 conductor spacing), gray PVC insulation, expanded copper mesh ground plane, 28 AWG drain wire (in contact with copper mesh). Black stripe indicates drain wire.

2682
300V 105C

Trade Number	Number of Cond.	Standard Lengths		Nominal Width			
				A		B	
		ft.	m	Inch ± .015	mm ± .38	Inch ± .010	mm ± .25
9GP1020†	20⊗	100	30.5	1.25	31.75	.950	24.13
9GP1026†	26⊗	100	30.5	1.55	39.37	1.250	31.75
9GP1034†	34⊗	100	30.5	1.95	49.53	1.650	41.91
9GP1040†	40⊗	100	30.5	2.25	57.15	1.950	49.53
9GP1050†	50⊗	100	30.5	2.75	69.85	2.450	62.23
9GP1060†	60⊗	100	30.5	3.25	82.55	2.950	74.93

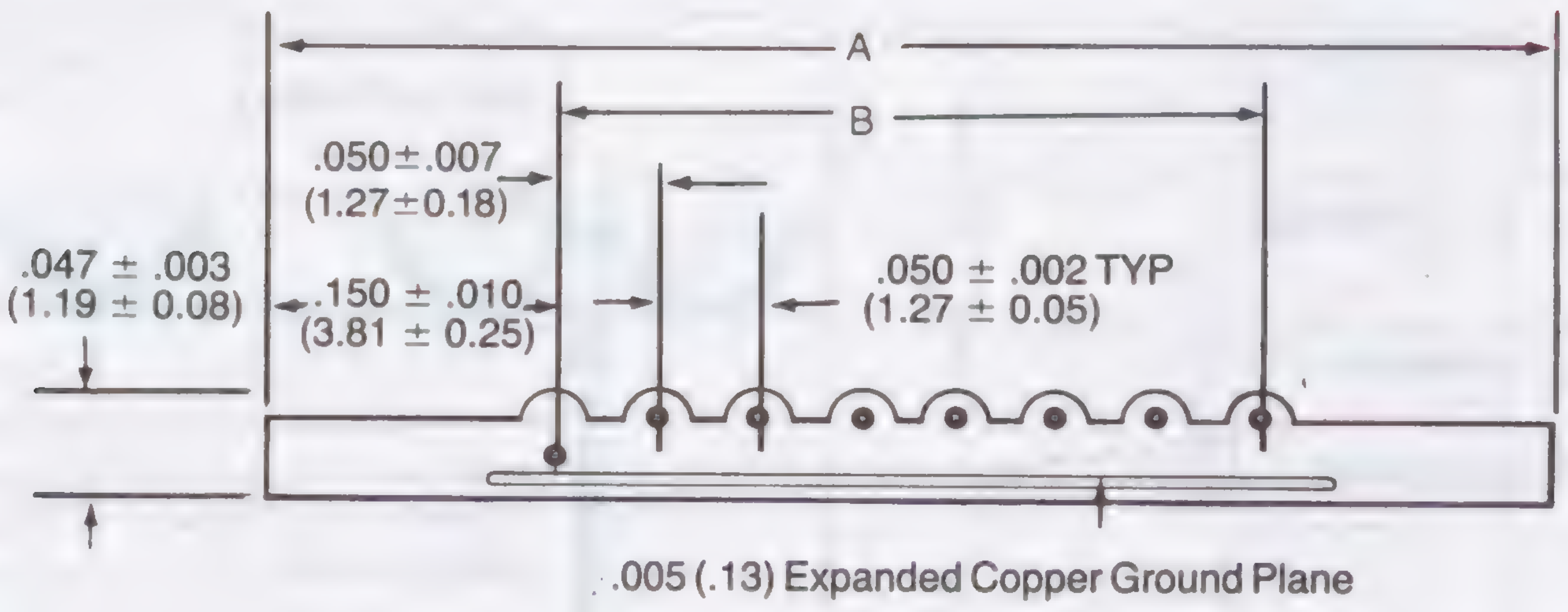
†Passes the VW-1 Vertical Wire Flame Test.
⊗One conductor designated as "ground."
Note: 1 Black line on insulation above drain wire.

Cable Electrical Specifications

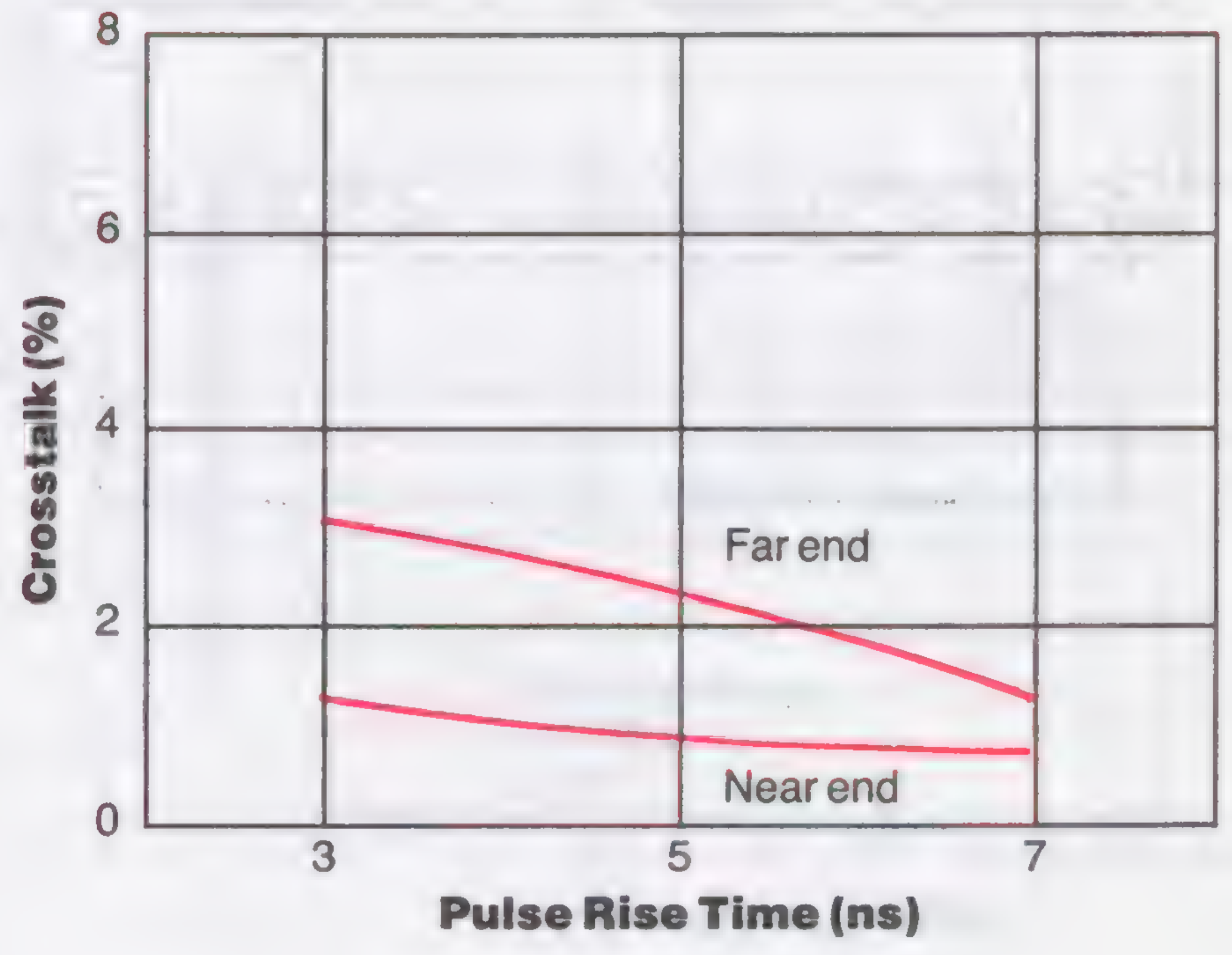
Wire Gage (AWG) 7x36 TC	Characteristic Impedance	Nominal Capacitance @ 1 MHz		Inductance @ 1 MHz	
	Ω	pF/ft.	pF/m	µH/ft.	µH/m
#28 Stranded	60	20	66	.13	.43

Cable configuration tested: GSG mesh grounded.

Dimensions inch (mm)



Unbalanced Crosstalk*



*GSG

.025 Pitch TLC Cable

Computer and Instrumentation

32 Gage
Solid Conductors

Standard Specifications

Voltage rating . . . . 300V rms
Dielectric withstand voltage. . . . . 2000V rms
Propagation delay . . . . GSG 1.57 ns/ft. (5.2 ns/M) nom.
Insulation resistance . . . . 10^3 MΩ (10 ft. sample)

Product Description

Tinned copper (.025 conductor spacing), gray PVC insulation. Red polarity stripe.

Will terminate to any standard .025″ IDC connector.

	Trade Number	Number of Cond	Standard Lengths		Nominal Width			
					A		B	
			ft.	m	Inch	mm	Inch	mm
	9L32041†	41	100	30.5	1.025	26.04	1.00	25.40
UL 2651 300V 105C	**9L32053†**	53	100	30.5	1.325	33.06	1.30	33.02

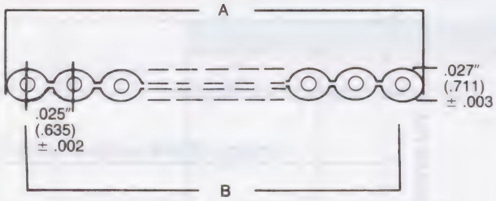
†Passes the VW-1 Vertical Wire Flame Test.

Cable Electrical Specifications

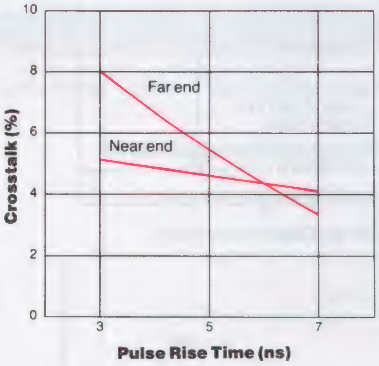
Wire gauge (AWG)	Characteristic Impedance		Nominal Capacitance @ 1 KHz			
	GS	GSG	GS		GSG	
	Ω	Ω	pF/ft.	pF/m	pF/ft.	pF/m
#32 Solid	135	93	16.9	51.5	25.9	77.0

Cable configuration tested: GS = Ground-Signal GSG = Ground-Signal-Ground.
*GSG

Dimensions inch (mm)

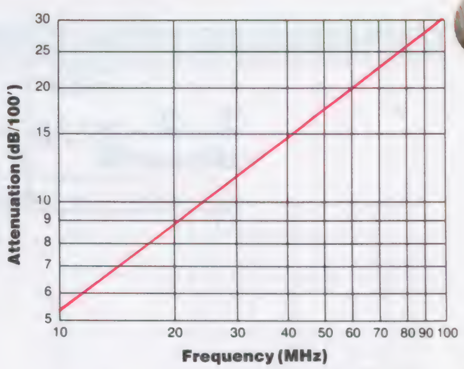


Unbalanced Crosstalk*



*GSG

Attenuation*



.050 Pitch Vari-Twist® Flat Cable

Computer and Instrumentation

28 Gage

Stranded Conductors (7x36)

Standard Specifications

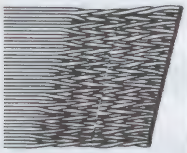
Voltage rating . . . . 300V rms
Dielectric withstand voltage . . . . 2000V rms
Propagation delay . . . . 1.6 ns/ft. (5.3 ns/M) nom.
Insulation resistance . . . . 10^3 MΩ (10 ft. sample)

Product Description

Tinned copper (.050 conductor spacing), PVC preinsulated, twisted pairs laminated to a clear PVC substrate. Standard twist length is 18 inches followed by a 2-inch flat section. Each adjacent pair is twisted in an opposite direction.

Variations in length of twisted or flat sections available upon request.

Will terminate to any standard IDC.



ЯU 2693
300V 105C
and/or
ЯU 2697
300V 80C

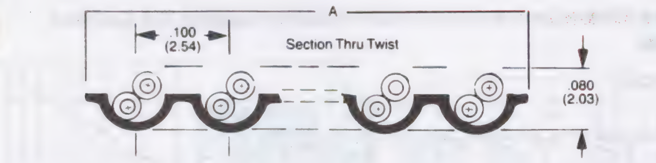
Part Number	Number of Pairs	Standard Lengths		Nominal Width			
				A		B	
		ft.	m	Inch	mm	Inch	mm
9V28010†	5	100	30.5	.50	12.7	.45	11.43
9V28014†	7	100	30.5	.70	17.8	.65	16.51
9V28016†	8	100	30.5	.80	20.3	.75	19.05
9V28020†	10	100	30.5	1.00	25.4	.95	24.13
9V28026†	13	100	30.5	1.30	33.0	1.25	31.75
9V28034†	17	100	30.5	1.70	43.2	1.65	41.91
9V28036†	18	100	30.5	1.80	45.7	1.75	44.50
9V28040†	20	100	30.5	2.00	50.8	1.95	49.53
9V28050†	25	100	30.5	2.50	63.5	2.45	62.23
9V28060†	30	100	30.5	3.00	76.2	2.95	74.93
9V28064†	32	100	30.5	3.20	81.3	3.15	80.01

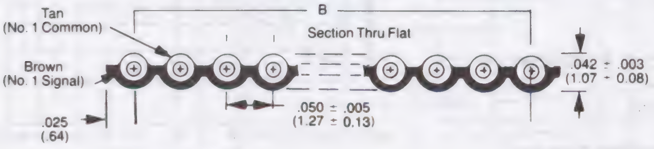
†Passes the VW-1 Vertical Wire Flame Test.

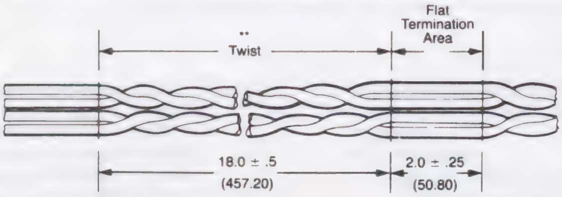
Cable Electrical Specifications

Wire Gage (AWG)	Characteristic Impedance	Nominal Capacitance @ 1 MHz		Inductance @ 1 MHz	
	Ω	pF/ft.	pF/m	μH/ft.	μH/m
#28 Stranded	100	16	52	.21	.69

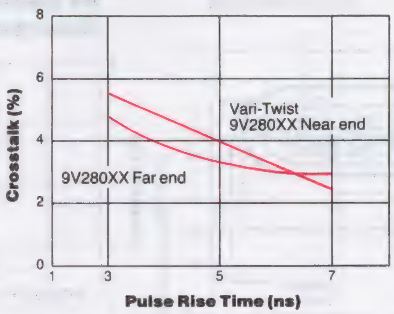
Dimensions inch (mm)



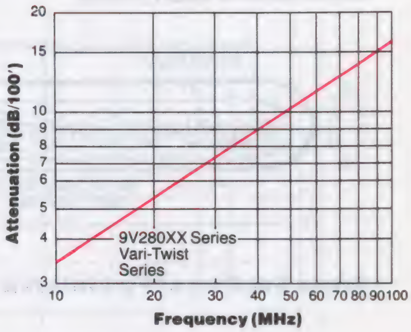




9V Cables Unbalanced Crosstalk

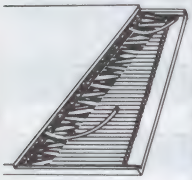


Attenuation 9V Cables



**The transition area is included in the twisted section to assure a full 2 inches of .050" termination area. Request Technical Data Bulletin T/8-44—Issue 1.

.050 Pitch Shielded Jacketed Vari-Twist® Flat Cable

	Part Number	Number of Pairs	Standard Lengths		Jacket Thickness		Nominal Width			
							A		B	
			ft.	m	Inch	mm	Inch	mm	Inch	mm
 UL 20081 300V 105C	**9V28310†**	5	100	30.5	.032	.81	.60	15.24	.45	11.43
	9V28314†	7	100	30.5	.032	.81	.80	20.32	.65	16.51
	9V28316†	8	100	30.5	.032	.81	.90	22.86	.75	19.05
	9V28320†	10	100	30.5	.032	.81	1.10	27.94	.95	24.13
	9V28326†	13	100	30.5	.032	.81	1.40	35.56	1.25	31.75
	9V28334†	17	100	30.5	.032	.81	1.80	45.72	1.65	41.91
	9V28336†	18	100	30.5	.032	.81	1.90	48.26	1.75	44.50
	9V28340†	20	100	30.5	.032	.81	2.10	53.34	1.95	49.53
	9V28350†	25	100	30.5	.032	.81	2.60	66.04	2.45	62.23
	9V28360†	30	100	30.5	.032	.81	3.10	78.74	2.95	74.93
	9V28364†	32	100	30.5	.032	.81	3.30	83.82	3.15	80.01

Computer and Instrumentation
28 Gage
Stranded Conductors (7x36)

Standard Specifications
Voltage rating . . . . 300V rms
Dielectric withstand voltage. . . . . 2000V rms
Propagation delay . . . . 1.6 ns/ft. (5.3 ns/M) nom.
Insulation resistance. 10^3 MΩ (10 ft. sample)

Product Description
Standard 9V280XX series cable (see product description on page 99) with overall Beldfoil® aluminum-polyester shield, two 28 AWG drain wires, black PVC jacket.

Variations in length of twisted or flat sections available upon request.

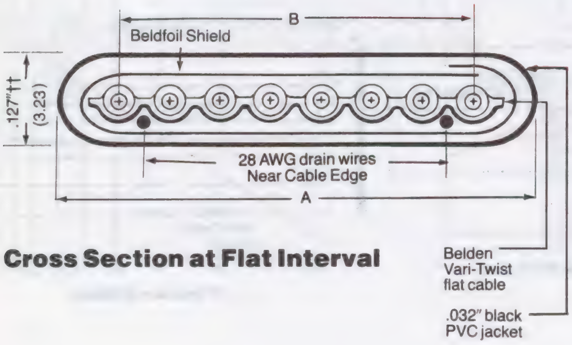
Will terminate to any standard IDC.

†Passes the VW-1 Vertical Wire Flame Test.
††Cable thickness of .147″ when measured over twisted section.

Cable Electrical Specifications (with shield grounded)

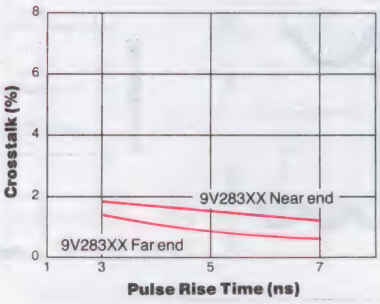
Wire Gage (AWG)	Characteristic Impedance	Nominal Capacitance @ 1 MHz		Inductance @ 1 MHz	
	Ω	pF/ft.	pF/m	µH/ft.	µH/m
#28 Stranded	60	29	95	.13	.43

Dimensions inch (mm)

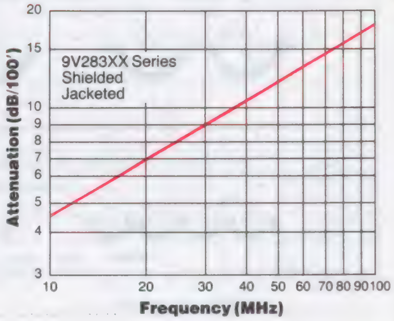


Cross Section at Flat Interval

9V Cables Unbalanced Crosstalk



Attenuation 9V Cables



50 ohm Ribbon Coaxial Cable

Computer and Instrumentation
28 Gage
Solid Conductors

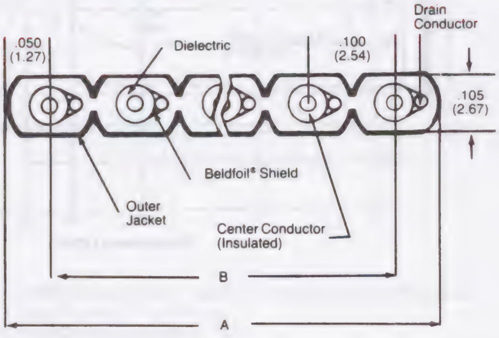
Product Description

Copper coated with an alkyd baked enamel (.100 conductor spacing), solid polypropylene insulation, Beldfoil® aluminum-polyester shield with tinned copper drain wire, black PVC jacket.
Will terminate to the AMP, Inc. Ribbon Coaxial Connector line.

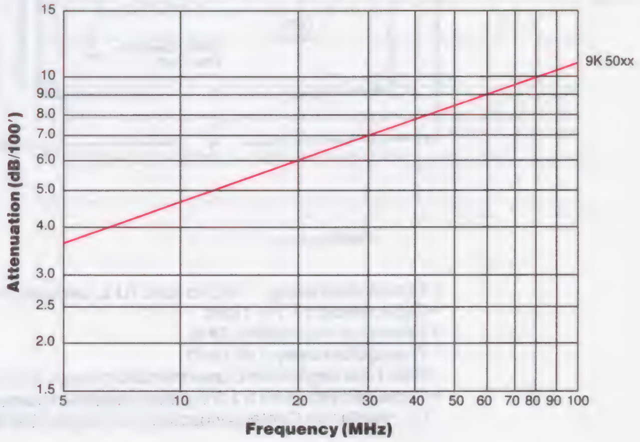
ЯU 20115
30V 60C

Trade Number	No. of Cond.	Standard Lengths		Insulation & Core O.D.		Jacket Thickness		Nominal Width			
								A		B	
		ft.	m	Inch	mm	Inch	mm	Inch	mm	Inch	mm
9K50004	4	100	30.5	Polypropylene .041	1.04	.028	.711	.40	10.16	.30	7.62
9K50005	5	100	30.5	Polypropylene .041	1.04	.028	.711	.50	12.70	.40	10.16
9K50006	6	100	30.5	Polypropylene .041	1.04	.028	.711	.60	15.24	.50	12.70
9K50007	7	100	30.5	Polypropylene .041	1.04	.028	.711	.70	17.78	.60	15.24
9K50008	8	100	30.5	Polypropylene .041	1.04	.028	.711	.80	20.32	.70	17.78
9K50009	9	100	30.5	Polypropylene .041	1.04	.028	.711	.90	22.86	.80	20.30
9K50010	10	100	30.5	Polypropylene .041	1.04	.028	.711	1.00	25.40	.90	22.90
9K50013	13	100	30.5	Polypropylene .041	1.04	.028	.711	1.30	33.02	1.20	30.50
9K50017	17	100	30.5	Polypropylene .041	1.04	.028	.711	1.70	43.18	1.60	40.60
9K50020	20	100	30.5	Polypropylene .041	1.04	.028	.711	2.00	50.80	1.90	48.30
9K50025	25	100	30.5	Polypropylene .041	1.04	.028	.711	2.50	63.50	2.40	70.00

Dimensions inch (mm)



Attenuation



- Temperature rating: −20C to 105C (U.L. rating 60C max.)
- Capacitance: 31 ± 1 pf/ft.
- Velocity of propagation: 66%
- Propagation delay: 1.6 ns/ft.
- Rise Time degradation: Less than 400 picosec/10 ft. (20-80% levels)
- Crosstalk: values for a 3, 5 or 7 nanosecond rise time are less than .1% for both far end and near end
- DC resistance:
  Center conductor: 72.9 ohms/ 1000 ft. max. at 20C
  Shield: 70.0 ohms/1000 ft. max. at 20C

75 ohm Ribbon Coaxial Cable

Computer and Instrumentation
30 Gage
Solid Conductors

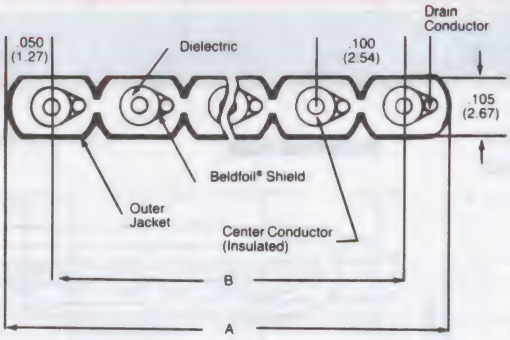
ЯU 20115
30V 60C

Product Description

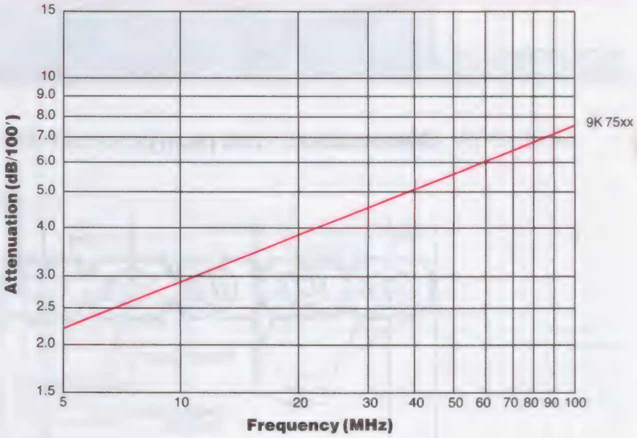
Copper coated with an alkyd baked enamel (.100 conductor spacing), foam polypropylene insulation, Beldfoil® aluminum-polyester shield with tinned copper drain wire, gray PVC jacket.
Can be terminated to the AMP, Inc. Ribbon Coaxial Connector line.

Trade Number	No. of Cond.	Std. Lgth.		Insulation & Core O.D.		Jacket Thickness		Nominal Width			
								A		B	
		ft.	m	Inch	mm	Inch	mm	Inch	mm	Inch	mm
9K75004	4	100	30.5	Foam Polypropylene .047	1.19	.025	.635	.400	10.16	.300	7.62
9K75005	5	100	30.5	Foam Polypropylene .047	1.19	.025	.635	.500	12.70	.400	10.16
9K75006	6	100	30.5	Foam Polypropylene .047	1.19	.025	.635	.600	15.24	.500	12.70
9K75007	7	100	30.5	Foam Polypropylene .047	1.19	.025	.635	.700	17.78	.600	15.24
9K75008	8	100	30.5	Foam Polypropylene .047	1.19	.025	.635	.800	20.32	.700	17.78
9K75009	9	100	30.5	Foam Polypropylene .047	1.19	.025	.635	.900	22.86	.800	20.30
9K75010	10	100	30.5	Foam Polypropylene .047	1.19	.025	.635	1.000	25.40	.900	22.90
9K75013	13	100	30.5	Foam Polypropylene .047	1.19	.025	.635	1.300	33.02	1.20	30.50
9K75017	17	100	30.5	Foam Polypropylene .047	1.19	.025	.635	1.700	43.18	1.60	40.60
9K75020	20	100	30.5	Foam Polypropylene .047	1.19	.025	.635	2.000	50.80	1.90	48.30
9K75025	25	100	30.5	Foam Polypropylene .047	1.19	.025	.635	2.500	63.50	2.40	70.00

Dimensions inch (mm)



Attenuation



- Temperature rating: –20C to 105C (U.L. rating 60C max.)
- Capacitance: 17.1 ± 1 pf/ft.
- Velocity of propagation: 78%
- Propagation delay: 1.35 ns./ft.
- Rise Time degradation: Less than 350 picosec/10 ft. (20-80% levels)
- Crosstalk: values for a 3, 5 or 7 nanosecond rise time are less than .1% for both far end and near end
- DC resistance: Center conductor: 112.1 ohms/1000 ft. max. at 20C Shield: 70.0 ohms/1000 ft. max. at 20C

93 ohm Ribbon Coaxial Cable

Computer and Instrumentation

30 Gage

Solid Conductors

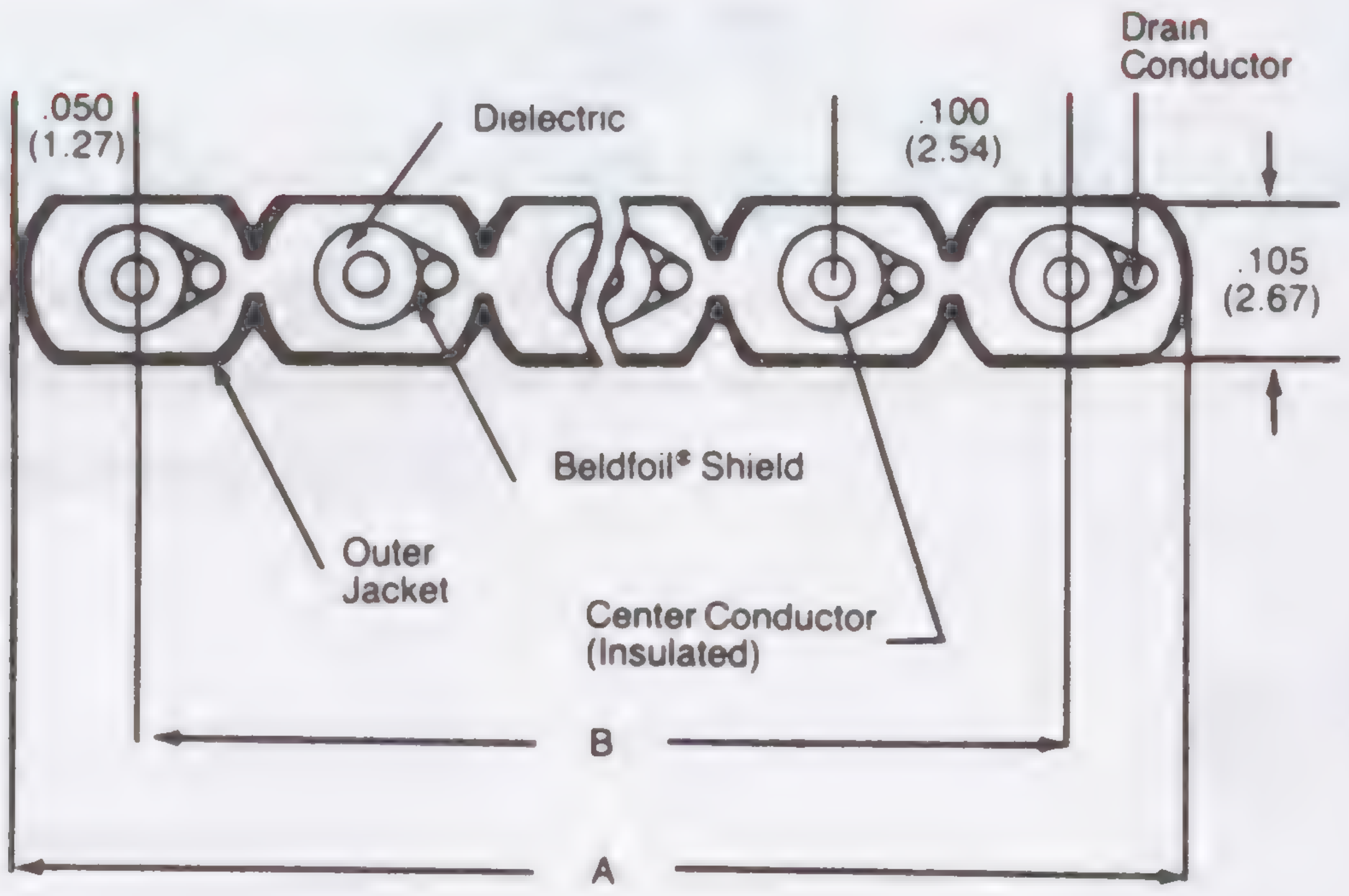
Product Description

Copper coated with an alkyd baked enamel (.100 conductor spacing), foam polypropylene insulation, Beldfoil® aluminum-polyester shield with tinned copper drain wire, red PVC jacket.
Will terminate to the AMP, Inc. Ribbon Coaxial Connector line.

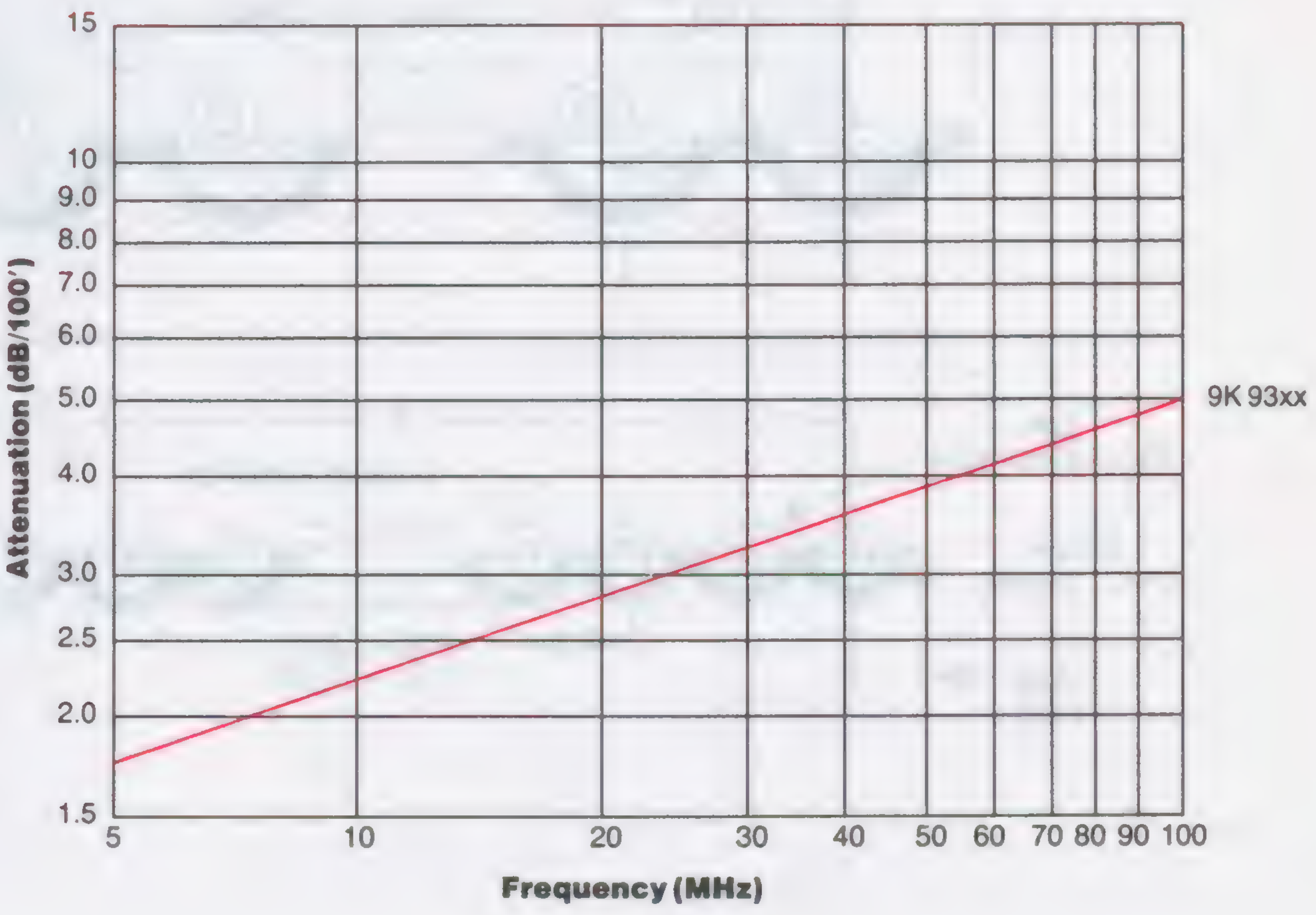
UL 20115
30V 60C

Trade Number	No. of Cond.	Std. Lgth.		Insulation & Core O.D.		Jacket Thickness		Nominal Width			
		ft.	m	inch	mm	inch	mm	A		B	
								inch	mm	inch	mm
9K93004	4	100	30.5	Foam Polypropylene .064	1.63	.015	.381	.400	10.16	.300	7.62
9K93005	5	100	30.5	Foam Polypropylene .064	1.63	.015	.381	.500	12.70	400	10.16
9K93006	6	100	30.5	Foam Polypropylene .064	1.63	.015	.381	.600	15.24	.500	12.70
9K93007	7	100	30.5	Foam Polypropylene .064	1.63	.015	.381	.700	17.78	.600	15.24
9K93008	8	100	30.5	Foam Polypropylene .064	1.63	.015	.381	.800	20.32	.700	17.78
9K93009	9	100	30.5	Foam Polypropylene .064	1.63	.015	.381	.900	22.86	.800	20.30
9K93010	10	100	30.5	Foam Polypropylene .064	1.63	.015	.381	1.000	25.40	.900	22.90
9K93013	13	100	30.5	Foam Polypropylene .064	1.63	.015	.381	1.300	33.02	1.20	30.50
9K93017	17	100	30.5	Foam Polypropylene .064	1.63	.015	.381	1.700	43.18	1.60	40.60
9K93020	20	100	30.5	Foam Polypropylene .064	1.63	.015	.381	2.000	50.80	1.90	48.30
9K93025	25	100	30.5	Foam Polypropylene .064	1.63	.015	.381	2.500	63.50	2.40	70.00

Dimensions inch (mm)



Attenuation*



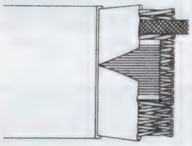
- Temperature rating: −20C to 105C (U.L. rating 60C max.)
- Capacitance: 14 ± 2 pf/ft.
- Velocity of propagation: 78%
- Propagation delay: 1.35 ns./ft.
- Rise Time degradation: Less than 350 picosec/10 ft. (20-80% levels)
- Crosstalk: values for a 3, 5 or 7 nanosecond rise time are less than .1% for both far end and near end
- DC resistance: Center conductor: 112.1 ohms/1000 ft. max. at 20C Shield: 70.0 ohms/1000 ft. max. at 20C

.050 Pitch A & B Flat Cable

Standard Specifications (Both Cables)
Voltage rating . . . . 300V rms
Dielectric withstand voltage . . . . 2000V rms
Propagation delay . . . . 1.6 ns/ft. (5.3 ns/M) nom.

Product Description

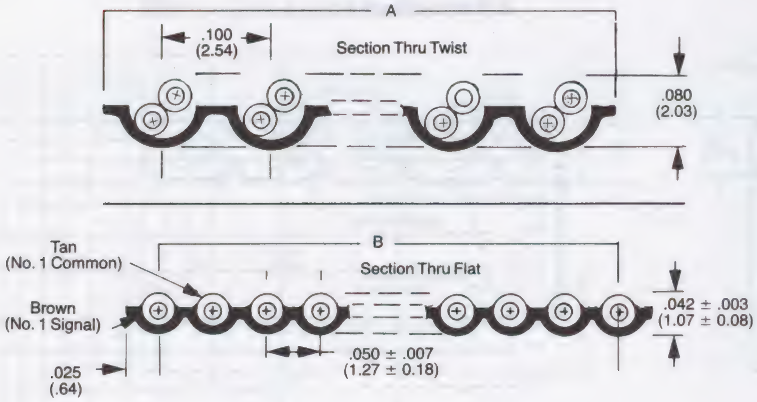
Combination of standard 26-conductor Ground Plane cable (.050 conductor spacing), and standard 30-pair Vari-Twist® (.050 conductor spacing), overall Beldfoil® aluminum-polyester shield, flattened tinned copper braid drain wire, overall PVC jacket.

	Trade Number	Number of Cond.	A		B	
			Inch	mm	Inch	mm
 2912 AWM Style	**9AB6026**	60 (30 pairs) Cable A Vari-Twist®	3.00	76.20	2.95	74.93
		26 Cable B Ground Plane	1.55	39.37	1.25	31.50

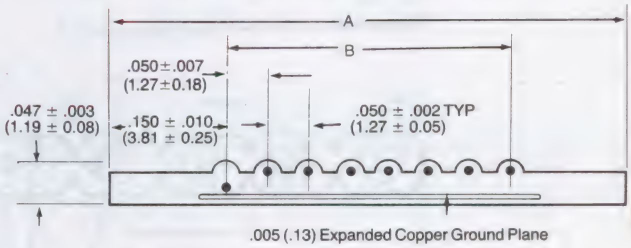
Cable Electrical Specifications

	Wire Gage (AWG)	Characteristic Impedance	Nominal Capacitance @ 1 MHz		Inductance @ 1 MHz	
		Ω	pF/ft.	pF/m	µH/ft.	µH/m
Cable A	#28 Stranded	100	16	52	.21	.69
Cable B	#28 Stranded	60	20	66	.13	.43

Vari-Twist Cable Dimensions inch (mm)



Ground Plane Cable Dimensions inch (mm)



Belden IDC connectors are designed to assure reliable fail/safe mass rmination of any .050″ pitch ribbon cable. This is accomplished by anufacturing to the strictest tolerances and quality assurance controls.

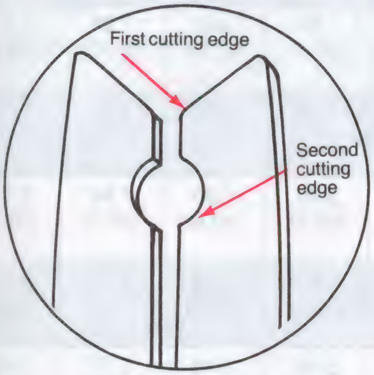
Belden offers one of the broadest connector lines in the industry: 3 and 4 sided Headers, Male and Female sockets, Card edge, PCB, DIP, S.H.E., D-Subminiature, and Mag Master™. Combine these with the flat cable offering: .050″ Pitch, Vari-Twist®, Shielded Jacketed Flat, Shielded Jacketed Vari-Twist, Ground Plane and Ribbon Coaxial Cable. Belden can supply your flat cable and connector needs.

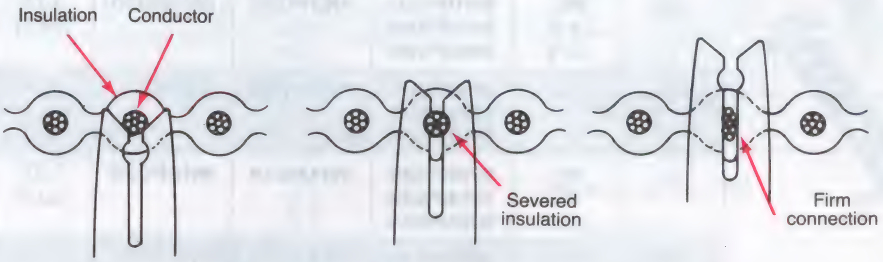
Belden IDC connector housings are made with solvent resistant resin (PBT) which meets UL 94V-0 flame rating. Selective gold plating is used to prevent corrosion and prevent the increase of contact resistance.

All headers are available with lock and eject hooks for ease of disconnect and to assure a positive lock. The Header/Socket combination is Mil-C-83503 compatible.

The double action IDC assures a positive gas tight connection between the connector and conductors. As the conductor is forced down into the slot, two cutting edges on each side of the slot penetrate the insulation. If any insulation is not removed in the first pass the second set of cutting edges will remove any remaining insulation.

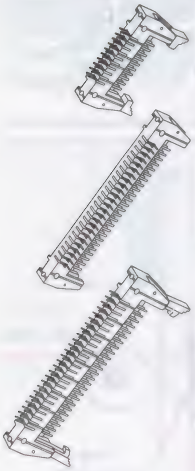
Belden Double Action IDC Connector





Terminating flat cable conductors to the Belden IDC connector.

Header Connectors



Positions	Hook	Partially Shrouded Straight	Partially Shrouded Right Angle	Fully Shrouded Straight	Header Dimensions A Inch (mm)	B Inch (mm)	C Inch (mm)	D Inch (mm)	E Inch (mm)	F Inch (mm)
10	WO .415 .571	**9H0P010** **9H3PS10** **9H6P010**	**9H1P010**	**8H0P010**	1.26 (32.0)	.858 (21.8)	1.10 (27.9)	.400 (10.16)	.720 (18.3)	1.04 (26.3)
14	WO .415 .571	**9H0P014** **9H3PS14** **9H6P014**	**9H1P014**	**8H0P014**	1.46 (37.1)	1.06 (26.9)	1.30 (33.0)	.600 (15.2)	.921 (23.4)	1.24 (31.4)
16	WO .415 .571	**9H0P016** **9H3PS16** **9H6P016**	**9H1P016**	**8H0P016**	1.56 (39.6)	1.16 (29.4)	1.40 (35.5)	.700 (17.8)	1.02 (25.9)	1.34 (33.9)
20	WO .415 .571	**9H0P020** **9H3PS20** **9H6P020**	**9H1P020**	**8H0P020**	1.76 (44.7)	1.36 (34.5)	1.60 (40.6)	.900 (22.9)	1.22 (31.0)	1.54 (39.0)
26	WO .415 .571	**9H0P026** **9H3PS26** **9H6P026**	**9H1P026**	**8H0P026**	2.06 (52.3)	1.66 (42.2)	1.90 (48.3)	1.20 (30.5)	1.52 (38.6)	1.84 (46.6)
34	WO .415 .571	**9H0P034** **9H3PS34** **9H6P034**	**9H1P034**	**8H0P034**	2.46 (62.5)	2.06 (52.3)	2.30 (58.4)	1.60 (40.6)	1.92 (48.8)	2.24 (56.8)
40	WO .415 .571	**9H0P040** **9H3PS40** **9H6P040**	**9H1P040**	**8H0P040**	2.76 (70.1)	2.36 (59.9)	2.60 (66.0)	1.90 (48.3)	2.22 (56.4)	2.54 (64.4)
50	WO .415 .571	**9H0P050** **9H3PS50** **9H6P050**	**9H1P050**	**8H0P050**	3.26 (82.8)	2.86 (72.6)	3.10 (78.7)	2.40 (61.0)	2.72 (69.0)	3.03 (77.0)
60	WO .415 .571	**9H0P060** **9H3PS60** **9H6P060**	**9H1P060**	**8H0P060**	3.76 (95.6)	3.36 (85.3)	3.60 (91.4)	2.90 (73.7)	3.22 (81.8)	3.54 (89.8)
Hooks and Pins	.571	**9H00004**								
Hooks and Pins	.415	**9H00006**								

Recognized under the Component Program of Underwriters Laboratories, Inc.

*

*By request only.

Engineering Data

Items	Specifications
Temperature range	−55C to 105C
Current rating	3A DC
Contact resistance (at status mated with Socket)	20m Ω max. at 6V DC, 0.3A
Insulation resistance	1000M Ω min. at 500V DC
Dielectric withstanding voltage	500V AC for 1 minute
U.L. voltage rating	30V DC
Thickness of PC board (standard)	.062″ (1.6 mm)
Materials: Contacts	Base metal of phosphor-bronze #521 with selective gold plating.
Housing	PBT (UL94V-0)
Terminals	Tin plated

- .100″ (2.54 mm) grid contact/terminal spacing
- .025″ (0.64 mm) square contact
- .020″ (0.5 mm) square terminal
- Selective plating (gold-plated contact and tin-plated terminal)
- Flex lock/eject hooks (optional)
- Many diversifications (10 to 60 pins, straight/right-angle)
- Solvent-resistant resin (PBT) housing
- U.L. recognized and CSA* certified

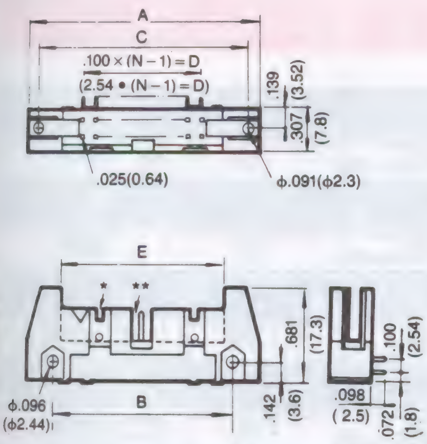
*By request only

Accessories

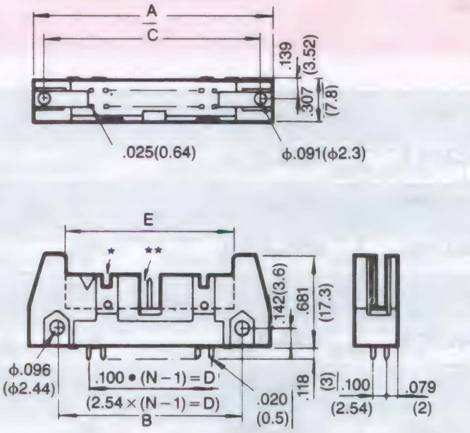
Locator Plate	**9H00002**
Polarization Key	**9H00005**

Dimensions inch (mm)

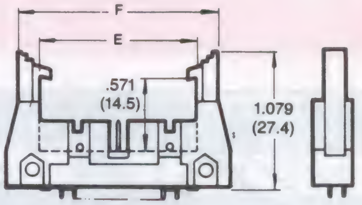
Right-Angle type
(Partially shrouded)



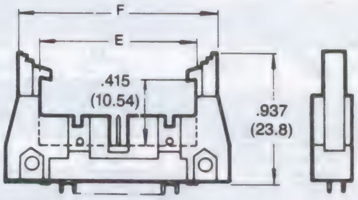
Straight type
(Partially shrouded)



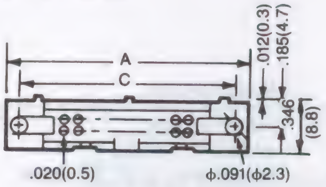
.571 Hooks



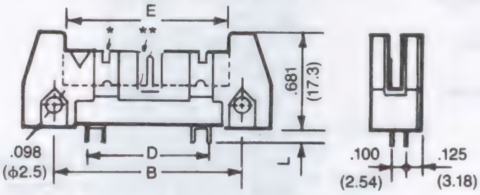
.415 Hooks



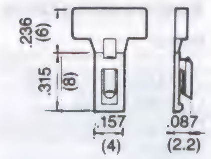
Straight type
(Fully shrouded)



L| standard terminal: .118 inch (3.0mm)



Polarization key (clip)



9H00005

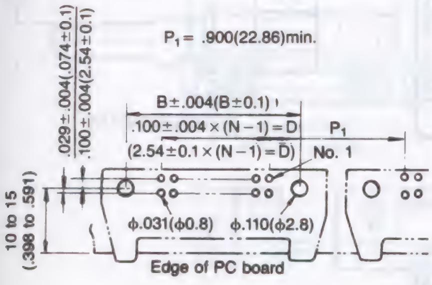
Polarization key is inserted in header to polarize the connector

*This polarization groove is not available on 10 and 14 position.

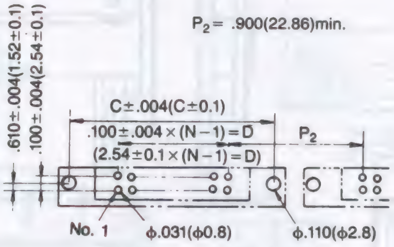
**Slot not available on the 10 position.

Mounting Hole Layout

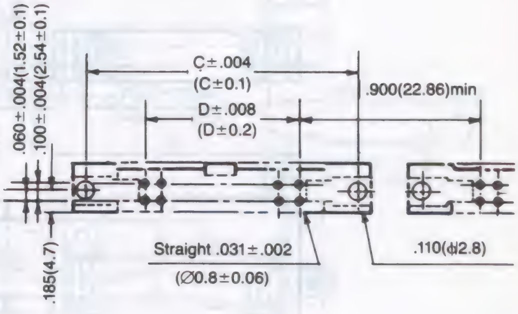
Right Angle Header
(Partially shrouded)



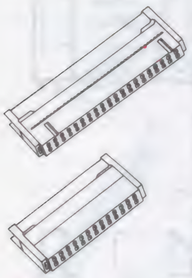
Straight Header
(Partially shrouded)



Straight Header
(Fully shrouded)



Standard-Profile Socket Connectors (with strain reliefs)



Recognized under the Component Program of Underwriters Laboratories, Inc.

Positions	Body & Cover (with strain relief)		Dimensions			
			A		B	
	Open	Closed	Inch	mm	Inch	mm
10	**9S4J010**	**9S5J010**	.400	10.16	.681	17.3
14	**9S4J014**	**9S5J014**	.600	15.24	.882	22.4
16	**9S4J016**	**9S5J016**	.700	17.78	.980	24.9
20	**9S4J020**	**9S5J020**	.900	22.86	1.181	30.0
26	**9S4J026**	**9S5J026**	1.200	30.48	1.480	37.6
34	**9S4J034**	**9S5J034**	1.600	40.64	1.882	47.8
40	**9S4J040**	**9S5J040**	1.900	48.26	2.181	55.4
50	**9S4J050**	**9S5J050**	2.400	60.96	2.681	68.1
60	**9S4J060**	**9S5J060**	2.900	73.66	3.181	80.8

*By request only

Engineering Data

Items	Specifications
Temperature range	−55C to 105C
Current rating	1A DC
Contact resistance (at status mated with Header)	20m Ω max. at 6V DC, 0.3A
Insulation resistance	1000M Ω min. at 500V DC
Dielectric withstanding voltage	500V AC for 1 minute
U.L. voltage rating	30V DC
Insertion force (with Header)	3.5kg max. (10 pins) to 21kg max. (60 pins)
Withdrawal force (with Header)	0.3kg min. (10 pins) to 2.5kg min. (60 pins)
Wire size	.050″ (1.27 mm) spacing
Flat Cable for IDC	AWG #28 (stranded) or #30 (solid)
Materials: Contacts	Base metal of phosphor-bronze #521 with selective gold plating.
Housing	PBT (UL 94V-0)
Strain relief	Polycarbonate (UL 94V-0)

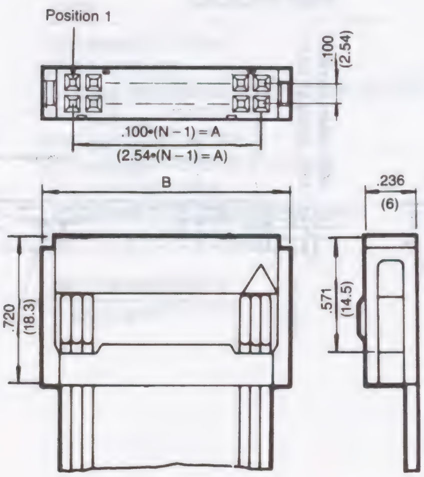
- .100″ (2.54 mm) contact spacing
- High-reliability original U-contact (double-action of IDC)
- Double-cantilever contact
- Many diversifications (10 to 60 pins, closed-end/through-end)
- Dual-beamed contacts
- Polycarbonate strain relief standard
- U.L. recognized and CSA* certified

*By request only

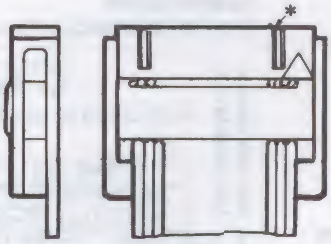
Accessories

Locator Plate	**9S00001**
Polarization Key	**9S00002**

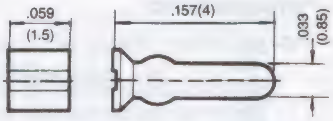
Dimensions inch (mm)



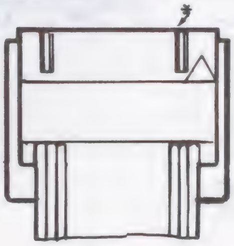
*Polarity groove is not available for 10 and 14 position



*Polarity groove is not available for 10 and 14 position



Polarization Key



Closed Cover

Low-Profile Socket Connectors (No strain relief)

	Positions	Without Polarity Bump		With Polarity Bump		Dimensions			
		Body & Cover		Body & Cover		A		B	
		Open	Closed	Open	Closed	Inch	mm	Inch	mm
 Recognized under the Component Program of Underwriters Laboratories, Inc.	10	8S0J010	8S1J010	8S2J010	8S3J010	.680	17.27	.400	10.16
	14	8S0J014	8S1J014	8S2J014	8S3J014	.880	22.35	.600	15.24
	16	8S0J016	8S1J016	8S2J016	8S3J016	.980	24.89	.700	17.78
	20	8S0J020	8S1J020	8S2J020	8S3J020	1.180	29.97	.900	22.86
	26	8S0J026	8S1J026	8S2J026	8S3J026	1.480	37.59	1.200	30.48
	34	8S0J034	8S1J034	8S2J034	8S3J034	1.880	47.75	1.600	40.64
	40	8S0J040	8S1J040	8S2J040	8S3J040	2.180	55.37	1.900	48.26
	50	8S0J050	8S1J050	8S2J050	8S3J050	2.680	68.07	2.400	60.96
	60	8S0J060	8S1J060	8S2J060	8S3J060	3.180	80.77	2.900	73.66

*By request only

Engineering Data

Items	Specifications
Temperature range	−55C to 105C
Current rating	1A DC
Contact resistance	20m Ω max. at 6V DC, 0.3A
Insulation resistance	1000M Ω min. at 500V DC
Dielectric withstanding voltage	500V AC for 1 minute
U.L. voltage rating	30V DC
Insertion force	3.5kg max. (10 pins) to 21kg max. (60 pins)
Withdrawal force	0.3kg min. (10 pins) to 2.5kg min. (60 pins)
Wire size: Flat Cable for IDC	.050″ (1.27 mm) spacing AWG # 28 (stranded) or #30 (solid)
Materials: Contacts	Base metal of phosphor-bronze #521 with selective gold plating
Housing	PBT (UL 94V-0)

- .100″ (2.54 mm) contact spacing
- High-reliability original U-contact (double-action of IDC)
- Contacts available: 10-60 positions
- Dual-beamed contacts
- U.L. recognized and CSA* certified

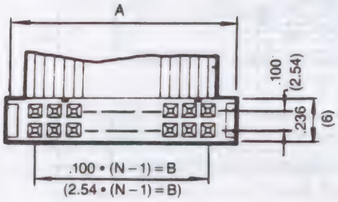
*By request only

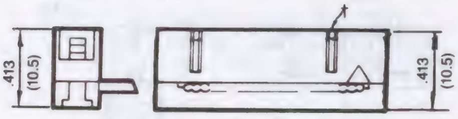
Accessories

Locator Plate	**8S00001**
Polarization Key	**9S00002**

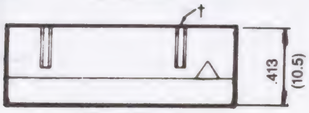
Dimensions inch (mm)

Without Polarity Bump



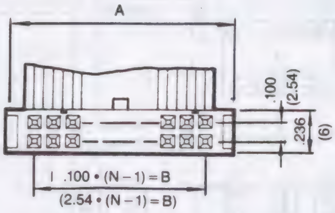


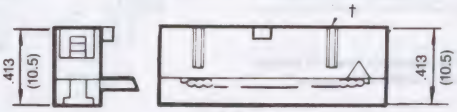
Open Cover



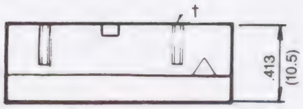
Closed Cover

With Polarity Bump



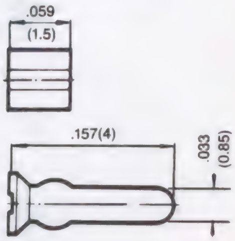


Open Cover



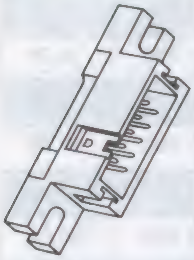
Closed Cover

Polarization Key



†Polarity groove is not available for 10 and 14 position

Male Connectors

	No. of Contacts	Trade Numbers		N	Dimensions									
		No Ears	Half Ears		A		B		C		D		E	
					Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
	10	**8SOP010**	**8SOP110**	5	1.50	38.1	1.20	30.5	.90	22.9	.71	18.0	.40	10.2
	14	**8SOP014**	**8SOP114**	7	1.70	43.2	1.40	35.6	1.10	28.0	.91	23.1	.60	15.2
	16	**8SOP016**	**8SOP116**	8	1.80	45.7	1.50	38.1	1.20	30.5	1.01	25.6	.70	17.8
	20	**8SOP020**	**8SOP120**	10	2.00	50.8	1.70	43.2	1.40	35.6	1.21	30.7	.90	22.9
	26	**8SOP026**	**8SOP126**	13	2.30	58.4	2.00	50.8	1.70	43.2	1.51	38.3	1.20	30.5
	34	**8SOP034**	**8SOP134**	17	2.70	68.6	2.40	60.1	2.10	53.4	1.91	48.5	1.60	40.6
	40	**8SOP040**	**8SOP140**	20	3.00	76.2	2.70	68.6	2.40	61.0	2.21	56.1	1.90	48.3
Recognized under the Component Program of Underwriters Laboratories, Inc.	50	**8SOP050**	**8SOP150**	25	3.50	88.9	3.20	81.3	2.90	73.7	2.71	68.8	2.40	61.0
*	60	**8SOP060**	**8SOP160**	30	4.00	101.6	3.70	94.0	3.40	86.4	3.21	81.5	2.90	73.7

*By request only.

Engineering Data

Items	Specifications
Temperature range	−55C to 105C
Current rating	1A DC
Contact resistance (with Socket)	20m Ω max. at 6V DC, 0.3 A
Insulation resistance	1000M Ω min. at 500V DC
Insertion force (with Socket)	3.5kg max. (10 pins) to 21kg max. (60 pins)
Withdrawal force (with Socket)	0.25kg min. (10 pins) to 2.5kg min. (60 pins)
Dielectric withstanding voltage	500V AC for 1 minute
Wire size	.050″ (1.27 mm) spacing, AWG #28
Flat cable for IDC	(stranded) or #30 (solid)
Materials: Contacts	Base metal of phosphor-bronze #521 with selective gold plating
Housing	PBT (UL 94V-0)

- Mass-termination with flat cable
- .100″ (2.54 mm) grid contact spacing
- .025″ (0.64 mm) square contact
- Extensive applications (T-tap, splice connector, I/O interface)
- Many diversifications (10-60 pins, with and without mounting ears)
- U.L. recognized and CSA* certified

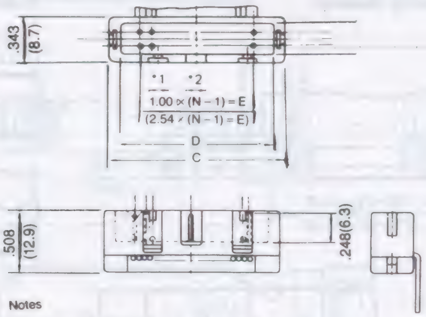
*By request only

Accessories

Locator Plate	**8SP0001**
Polarization Key	**9H00005**

Dimensions inch (mm)

No Ears

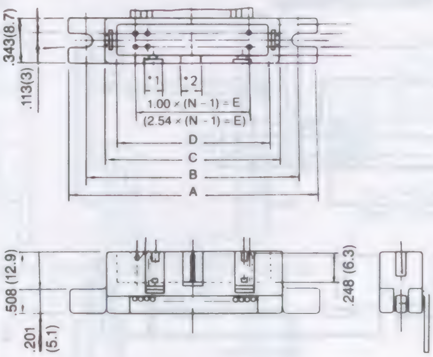


Notes

*1. Notch is not available for 10 and 14 positions.

*2. Notch is not available for 10 positions.

Half Ears



S.H.E. Connectors (Socket Header Eliminator)

	Positions	Body & Cover	Dimensions			
			A		B	
			Inch	mm	Inch	mm
 Recognized under the Component Program of Underwriters Laboratories, Inc. *	10	**9ETP010**	.756	19.2	.400	10.16
	14	**9ETP014**	.957	24.3	.600	15.24
	16	**9ETP016**	1.055	26.8	.700	17.78
	20	**9ETP020**	1.256	31.9	.900	22.86
	26	**9ETP026**	1.555	39.5	1.200	30.48
	34	**9ETP034**	1.957	49.7	1.600	40.64
	40	**9ETP040**	2.256	57.3	1.900	48.26
	50	**9ETP050**	2.756	70.0	2.400	60.96
	60	**9ETP060**	3.256	82.7	2.900	73.66

*By request only.

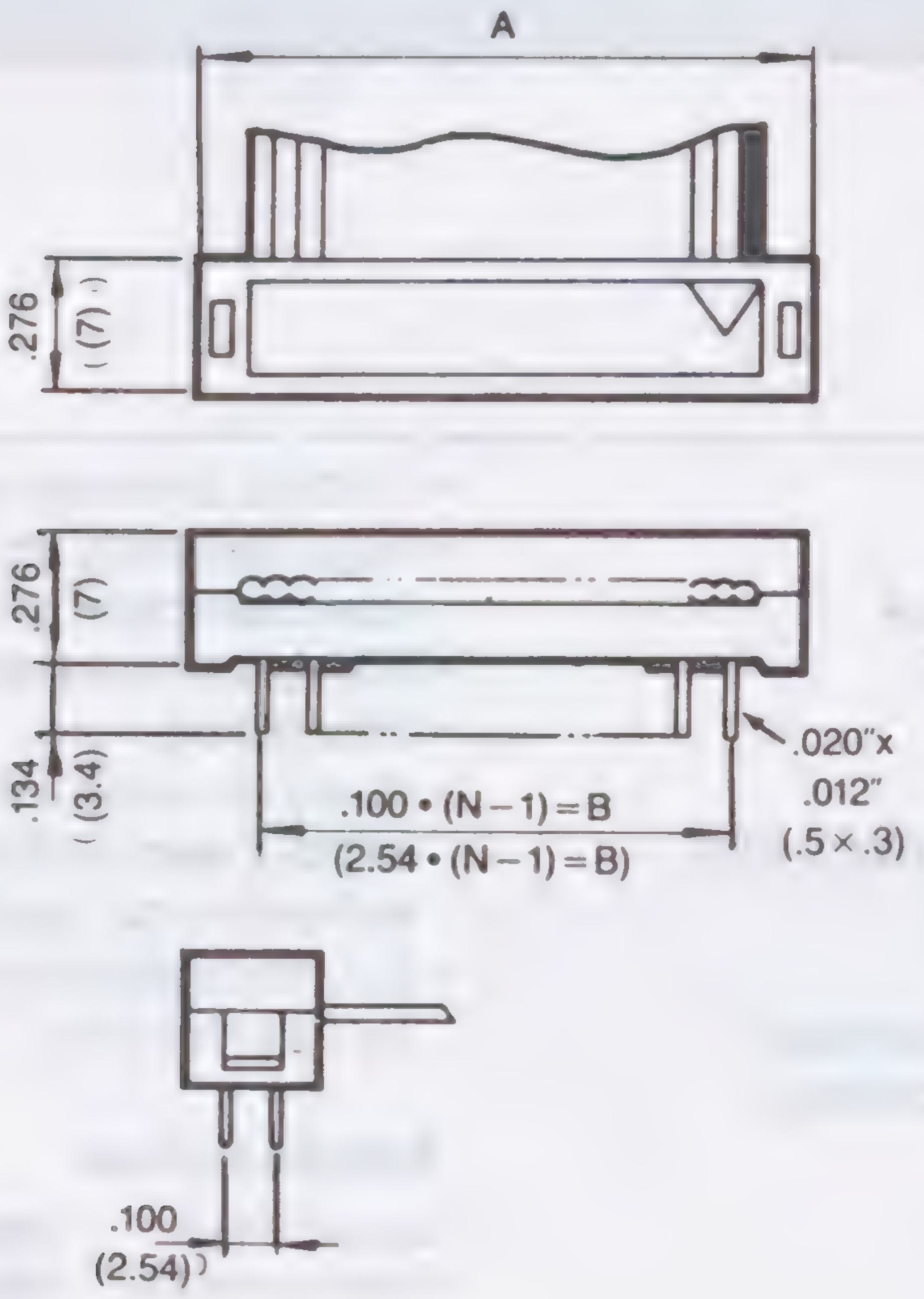
Engineering Data

Items	Specifications
Temperature range	−55C to 105C
Current rating	1A DC
Contact resistance	10m Ω max. at 6V DC, 0.3A
Insulation resistance	1000M Ω min. at 500V DC
Dielectric withstanding voltage	500V AC for 1 minute
Wire size	.050″ (1.27 mm) spacing, AWG #28
Flat Cable for IDC	(stranded) or #30 (solid)
Thickness of PC board (standard)	.062″ (1.6 mm)
Materials: Contacts	Base metal of phosphor-bronze #521
Housing	PBT (UL 94V-0)
Terminals	Tin plated

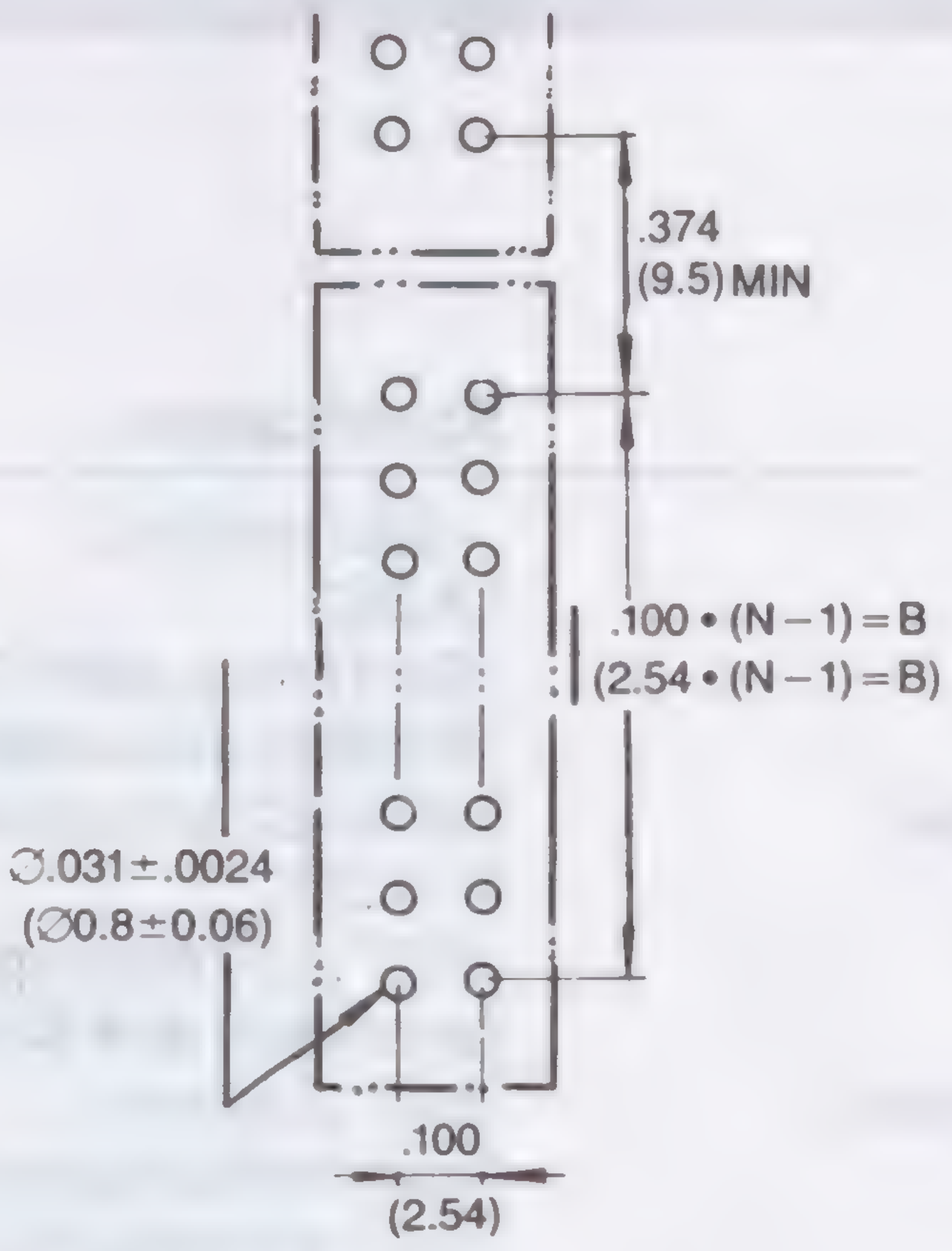
- .100″ (2.54 mm) grid terminal spacing
- High-density installation on PC board
- Economical replacement of sockets and headers
- High reliability original U-contact (double-action of IDC)
- Pin location matches header mounting hole layout
- Contacts available: 10-60 positions
- Solvent-resistant resin (PBT) housing
- U.L. recognized and CSA* certified
- Tin plated terminals

*By request only

Dimensions inch (mm)



Mounting Hole Layout

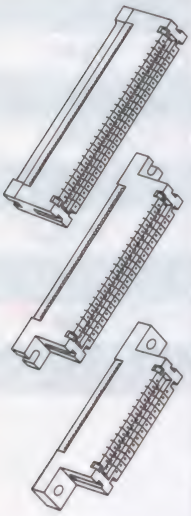


Note: Pin location matches header mounting hole layout.

Accessories

Locator Plate **9E00001**

Card-Edge Connectors



No. of Contacts	Positions	Body & Cover	Dimensions inch (mm)						
			A	B	C	D	E	F	G
10	No Ears No Ears, SR ½ Ears Full Ears	**9C4J010** **9C5J010** **9C6J010** **9C8J010**	.959 (24.36)	1.300 (33.02)	1.500 (38.10)	1.400 (35.56)	1.720 (43.69)	.400 (10.16)	.595 (15.11)
16	No Ears No Ears, SR ½ Ears Full Ears	**9C4J016** **9C5J016** **9C6J016** **9C8J016**	1.259 (31.98)	1.600 (40.64)	1.800 (45.72)	1.700 (43.18)	2.020 (51.31)	.700 (17.78)	.894 (22.73)
20	No Ears No Ears, SR ½ Ears Full Ears	**9C4J020** **9C5J020** **9C6J020** **9C8J020**	1.459 (37.06)	1.800 (45.72)	2.000 (50.80)	1.900 (48.26)	2.200 (56.39)	.900 (22.86)	1.095 (27.81)
26	No Ears No Ears, SR ½ Ears Full Ears	**9C4J026** **9C5J026** **9C6J026** **9C8J026**	1.759 (44.68)	2.100 (53.34)	2.300 (58.42)	2.200 (55.88)	2.520 (64.01)	1.200 (30.48)	1.395 (35.43)
34	No Ears No Ears, SR ½ Ears Full Ears	**9C4J034** **9C5J034** **9C6J034** **9C8J034**	2.159 (54.84)	2.500 (63.50)	2.700 (68.58)	2.600 (66.04)	2.920 (74.17)	1.600 (40.65)	1.795 (45.59)
40	No Ears No Ears, SR ½ Ears Full Ears	**9C4J040** **9C5J040** **9C6J040** **9C8J040**	2.459 (62.46)	2.800 (71.12)	3.000 (76.20)	2.900 (73.66)	3.220 (81.79)	1.900 (48.26)	2.095 (53.21)
50	No Ears No Ears, SR ½ Ears Full Ears	**9C4J050** **9C5J050** **9C6J050** **9C8J050**	2.959 (75.16)	3.300 (83.82)	3.500 (88.90)	3.400 (86.36)	3.720 (94.49)	2.400 (60.76)	2.595 (65.91)
60	No Ears No Ears, SR ½ Ears Full Ears	**9C4J060** **9C5J060** **9C6J060** **9C8J060**	3.459 (87.86)	3.800 (96.52)	4.000 (101.60)	3.900 (99.06)	4.220 (107.19)	2.900 (73.66)	3.095 (78.61)
	Strain Relief (available separately in groups of 10)	**9C1S010** **9C1S016** **9C1S020** **9C1S026** **9C1S034** **9C1S040** **9C1S050** **9C1S060**	Last two digits indicate position number.						

Recognized under the Component Program of Underwriters Laboratories, Inc.

*

*By request only

Engineering Data

Items	Specifications
Temperature range	−55C to 105C
Current rating	1A DC
Contact resistance	20m Ω max. at 6V DC, 0.3A
Insulation resistance	1000M Ω min. at 500V DC
Dielectric withstanding voltage	500V AC for 1 minute
U.L. voltage rating	30V DC
Wire size: Flat cable for IDC	.050″ (1.27 mm) spacing, AWG #28 (stranded) or #30 (solid)
Thickness of PC board (standard)	.062″ (1.6 mm)
Materials: Contacts	Base metal of phosphor-bronze #521 with selective gold plating.
Housing	PBT (UL 94V-0)

- .100″ (2.54 mm) contact spacing
- High-reliability original U-contact (double-action of IDC)
- Bifurcated contacts for reliable interfacing
- Many diversifications (10-60 pins, without ears/with half ears, with full ears, without strain relief/with strain relief)
- U.L. recognized and CSA* certified

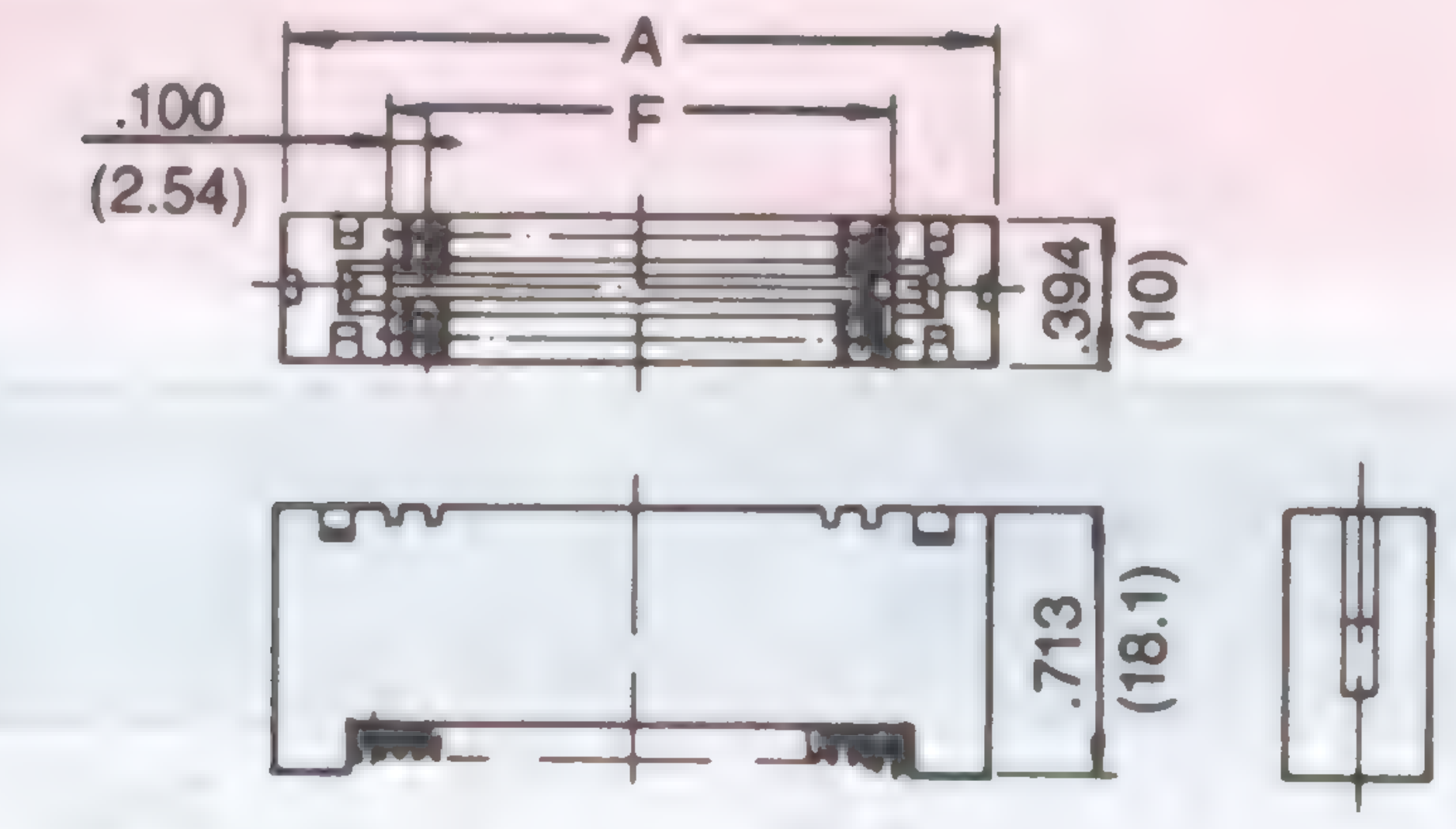
*By request only

Accessories

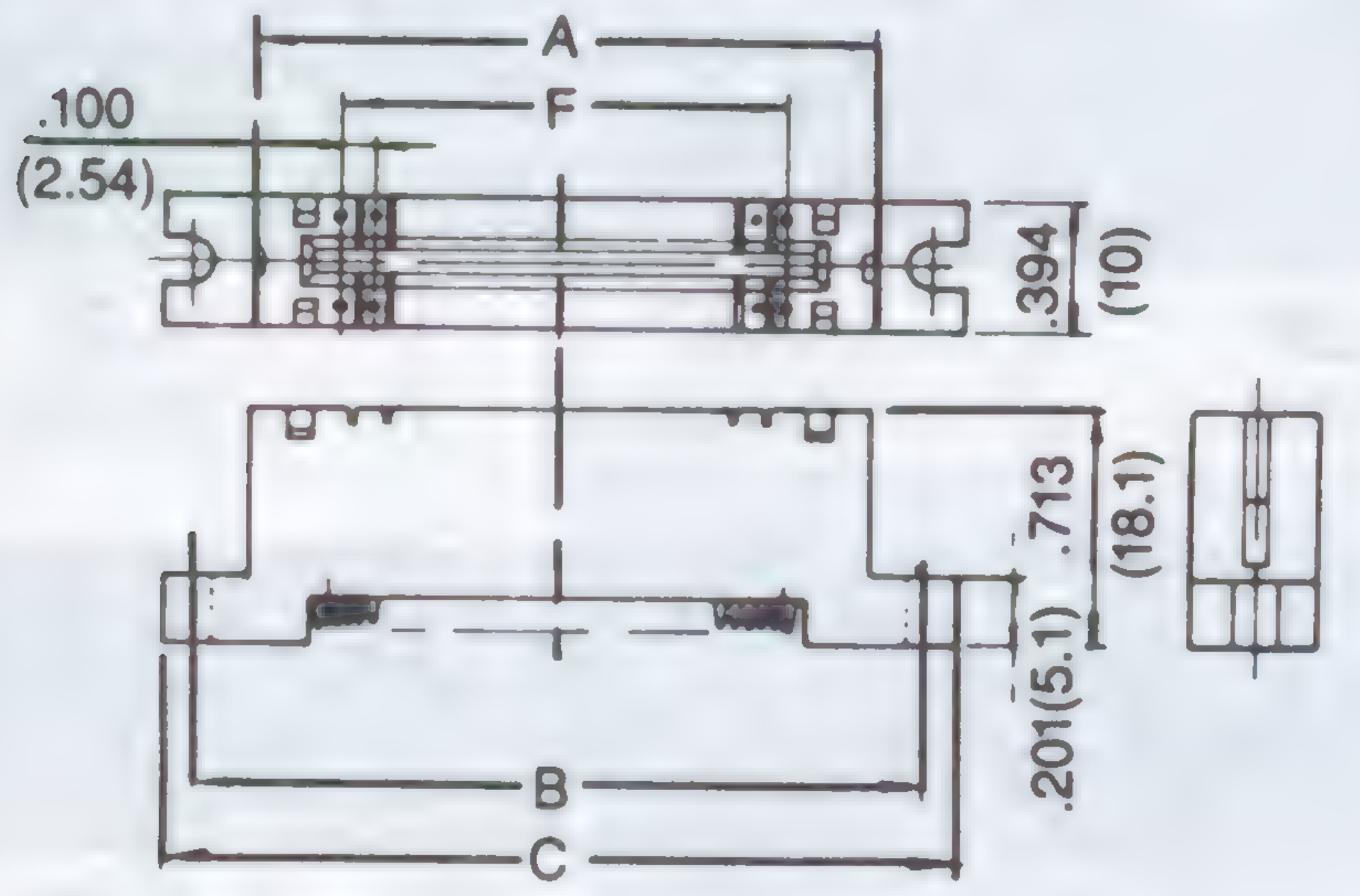
Locator Plate	**9C00001**
Polarization Key	**9C00002**

Dimensions inch (mm)

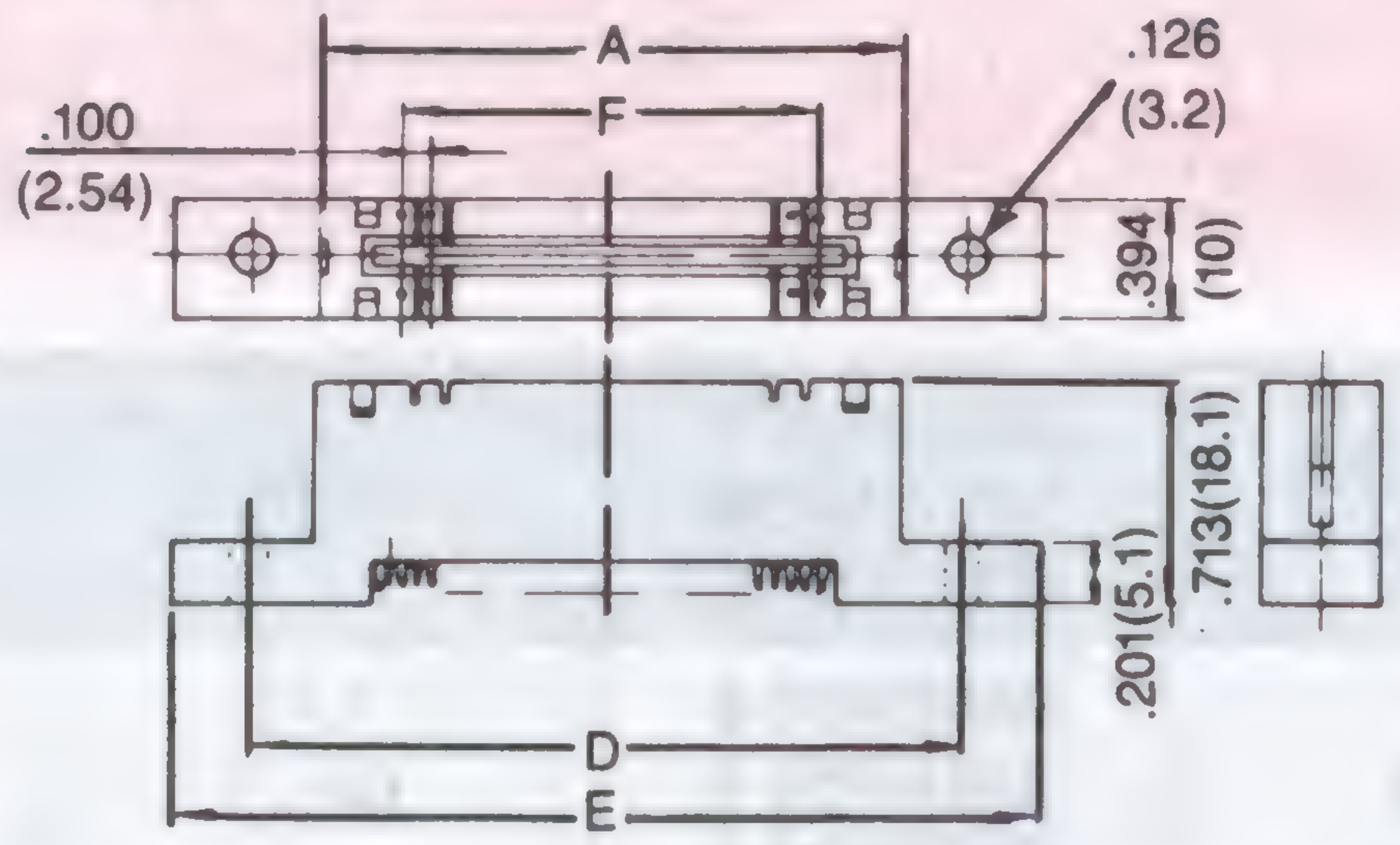
Housing without mounting ears.



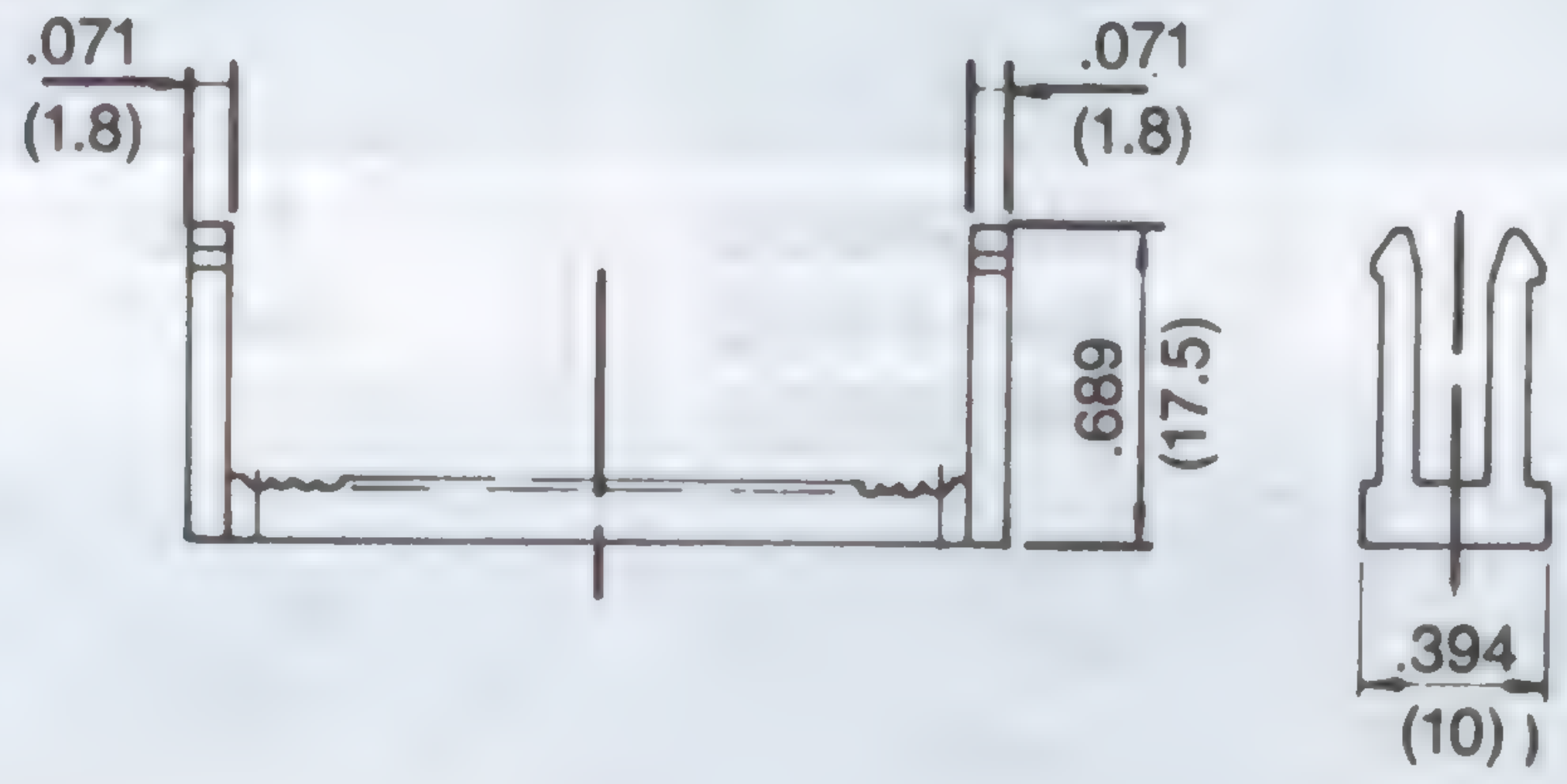
Housing with half mounting ears.



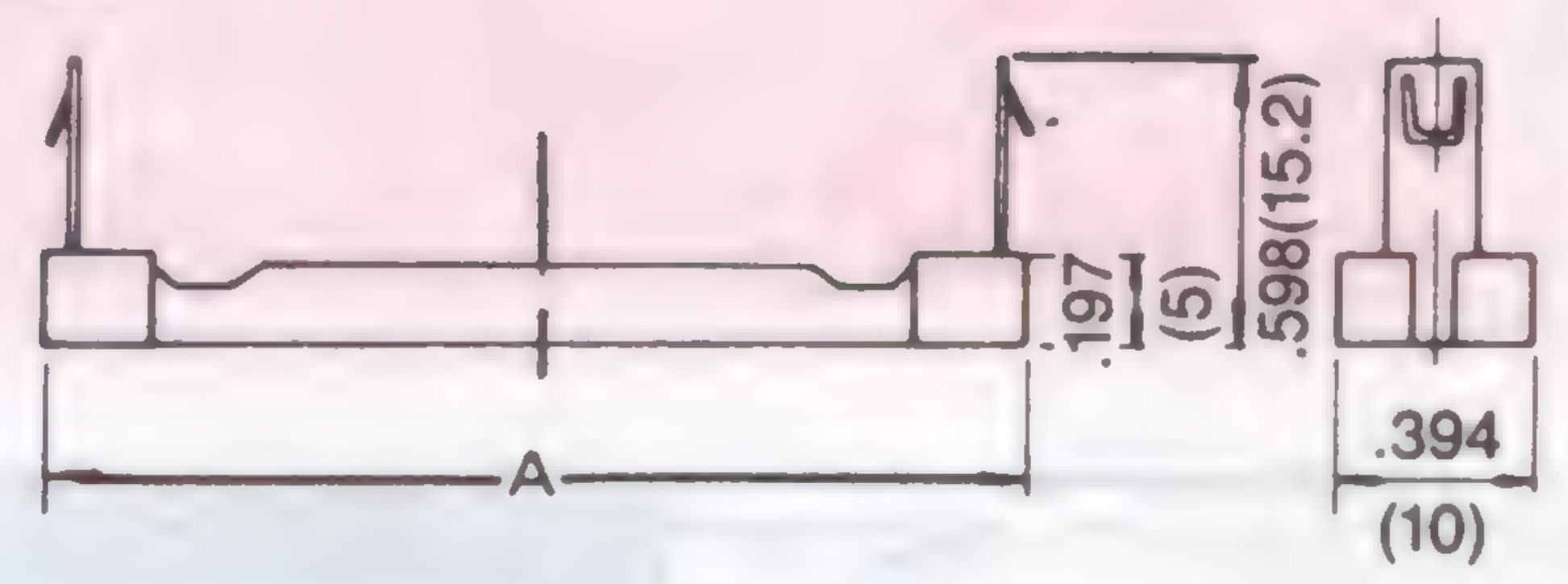
Housing with full mounting ears.



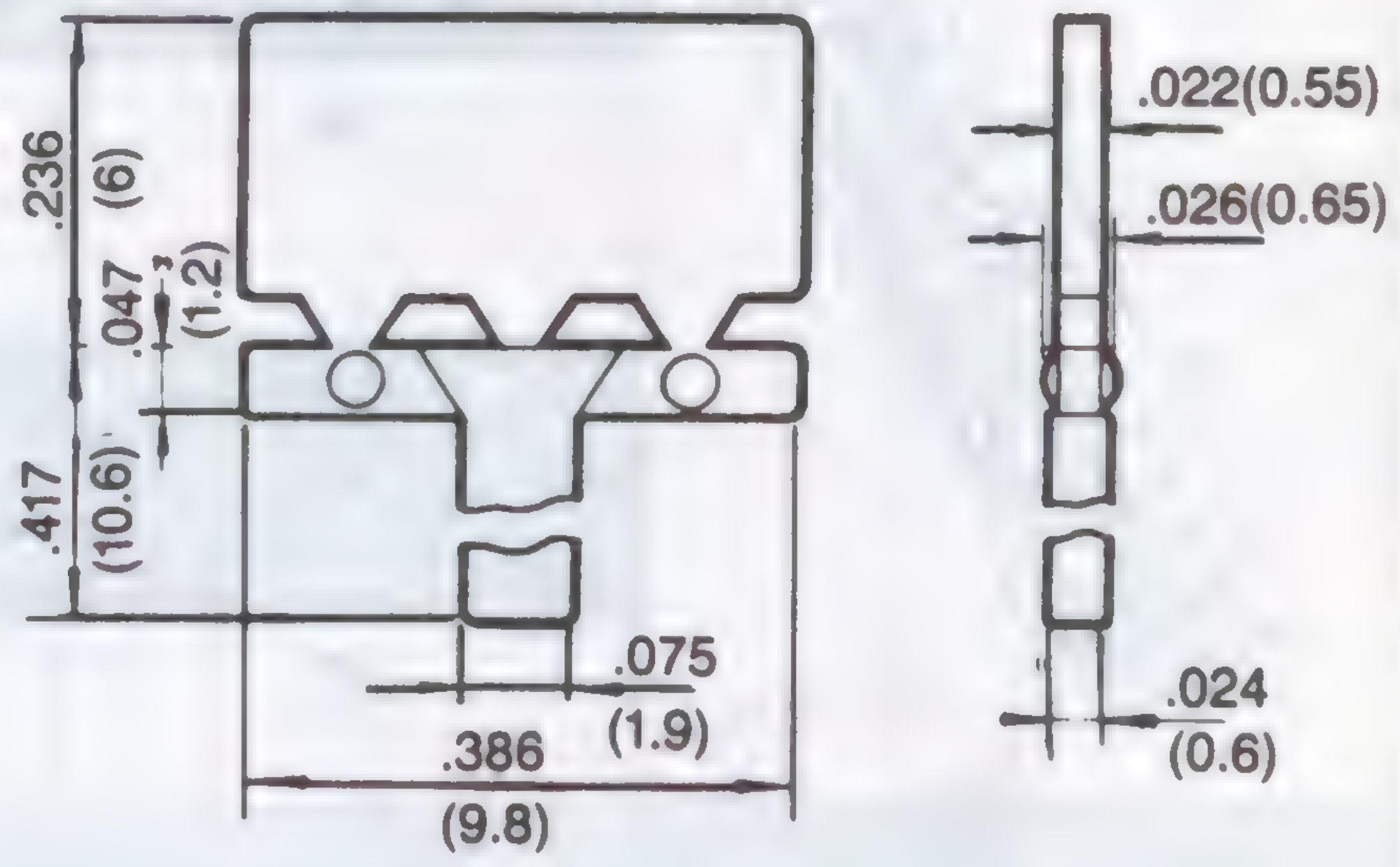
Cover



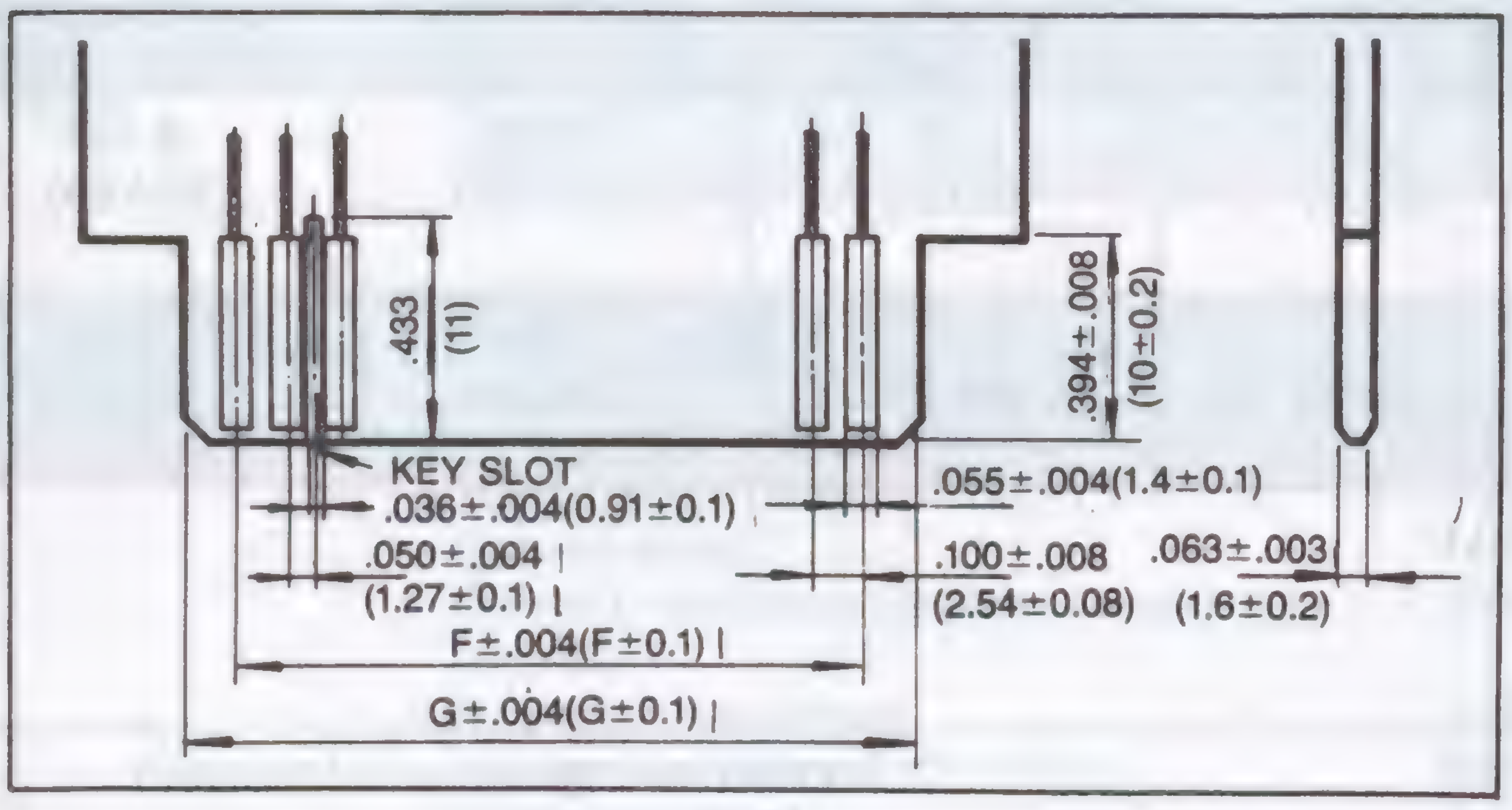
Strain relief



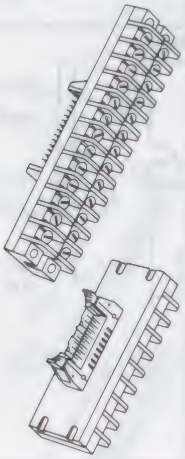
Polarization Key **9C0000Z**



Pattern of PC Board



Mag-Master™ Connectors

	Positions	Hook	Part Number	Dimensions			
				A	B	C	D
				Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)
	10	WO .415 .571	**9M0P010** **9M1PS10** **9M2P010**	1.26 (32.0)	.720 (18.3)	2.25 (57.20)	1.95 (49.53)
	14	WO .415 .571	**9M0P014** **9M1PS14** **9M2P014**	1.46 (37.1)	.921 (23.4)	2.90 (73.66)	2.60 (66.04)
	16	WO .415 .571	**9M0P016** **9M1PS16** **9M2P016**	1.56 (39.6)	1.02 (25.9)	3.22 (81.79)	2.93 (74.42)
	20	WO .415 .571	**9M0P020** **9M1PS20** **9M2P020**	1.76 (44.7)	1.22 (31.0)	3.87 (98.30)	3.58 (90.93)
	26	WO .415 .571	**9M0P026** **9M1PS26** **9M2P026**	2.06 (52.3)	1.52 (38.6)	4.85 (123.20)	4.55 (115.58)
	34	WO .415 .571	**9M0P034** **9M1PS34** **9M2P034**	2.46 (62.5)	1.92 (48.8)	6.15 (156.21)	5.85 (148.60)
	40	WO .415 .571	**9M0P040** **9M1PS40** **9M2P040**	2.76 (70.1)	2.22 (56.4)	7.12 (180.80)	6.83 (173.36)
	50	WO .415 .571	**9M0P050** **9M1PS50** **9M2P050**	3.26 (82.8)	2.72 (69.0)	8.75 (222.25)	8.45 (214.63)
	60	WO .415 .571	**9M0P060** **9M1PS60** **9M2P060**	3.76 (95.5)	3.22 (81.8)	10.37 (263.40)	10.08 (256.03)

Engineering Data

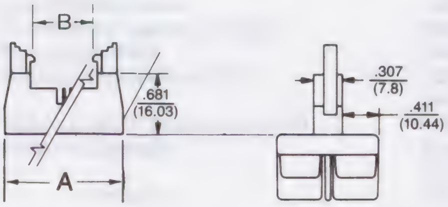
Items	Specifications
Temperature range	−20C to 70C
Current rating	3A DC
Contact resistance (at status mated with Socket)	20m Ω max. at 6V DC, 0.3A
Insulation resistance	1000M Ω min. at 500V DC
Dielectric withstanding voltage	500V AC for 1 minute
U.L. voltage rating	30V DC
Contacts	Selective gold-plating

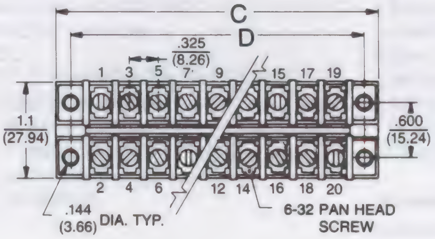
- Flex lock/eject hooks (optional)
- 10-60 pins
- Solvent-resistant
- U.L. recognized
- Header section Mil-C-83503 compatible
- Interface between discrete wiring and flat cable

Accessories

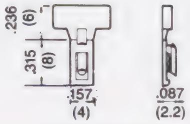
Polarization Key **9H00005**

Dimensions inch (mm)



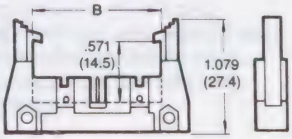


Polarization Key (clip)

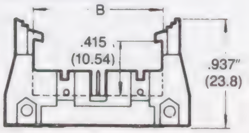


9H00005

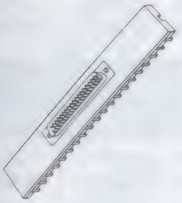
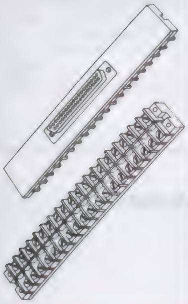
.571 Hook



.415 Hook



D-Subminiature Mag-Master™ Connectors

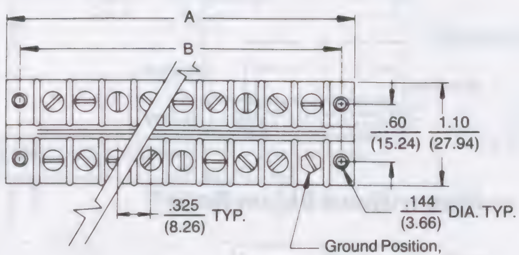
	Type	Positions	Part Number	Dimensions inch (mm)				
				A	B	C	D	E
	Subminiature D (male)	25	**9MDP025**	4.845 (123.06)	4.58 (116.33)	2.087 (53.01)	1.234 (31.34)	1.574 (39.98)
	Subminiature D (female)	25	**9MDJ025**	4.845 (123.06)	4.58 (116.33)	2.087 (53.01)	1.234 (31.34)	1.513 (38.43)

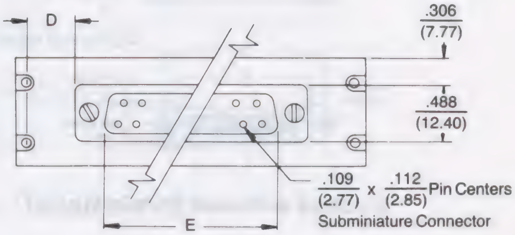
Engineering Data

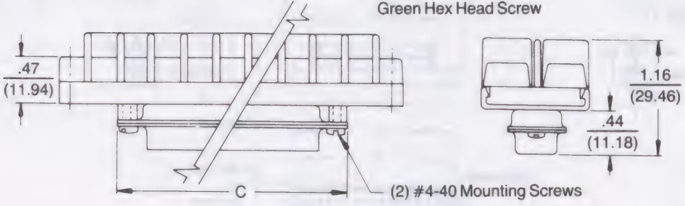
Items	Specifications
Temperature range	−20C to 70C
Current rating	1A DC
Contact resistance (at status mated with Socket)	20m Ω max. at 6V DC, 0.3A
Insulation resistance	1000M Ω min. at 500V DC
Dielectric withstanding voltage	500V AC for 1 minute
Contacts	Selective gold-plating

- Solvent-resistant
- 25 positions
- Separate grounding screw for connector shell

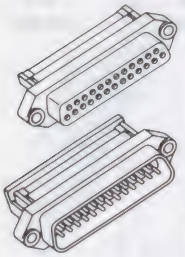
Dimensions inch (mm)







D-Subminiature Connectors

	No. of Contacts	Plug	Socket	Strain Relief	Dimensions inch (mm)					
					A	B	C	D	E	F
	9	**9DSP009**	**9DSJ009**	**9DSS009**	0.737 (18.73)	0.984 (24.99)	0.639 (16.23)	0.736 (18.69)	0.643 (16.33)	1.216 (30.89)
	15	**9DSP015**	**9DSJ015**	**9DSS015**	1.065 (27.04)	1.312 (33.32)	0.966 (24.54)	1.063 (27.00)	0.971 (24.66)	1.544 (39.22)
	25	**9DSP025**	**9DSJ025**	**9DSS025**	1.609 (40.88)	1.852 (47.04)	1.511 (38.38)	1.607 (40.84)	1.511 (38.38)	2.084 (52.93)
	37	**9DSP037**	**9DSJ037**	**9DSS037**	2.263 (57.49)	2.500 (63.50)	2.165 (54.99)	2.257 (57.33)	2.159 (54.84)	2.732 (69.39)

Mass terminable to .050″ pitch cable without any cable preparation.

Engineering Data

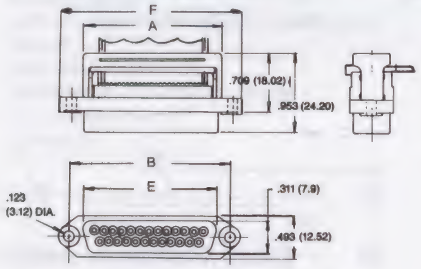
Item	Specifications
Temperature range	−55C to 105C
Current rating	1A DC
Voltage rating	250V AC
Contact resistance	10m Ω max.
Insulation resistance	1000M Ω min. at 500V DC
Dielectric withstanding voltage	500V AC for 1 minute
Insertion force	10kg max.
Withdrawal force	0.75kg min.
Flat cable	.050″ (1.27 mm) spacing, AWG #28 (stranded) or #30 (solid)
Materials: Contacts	Base metal of phosphor-bronze #521 with selective gold-plating
Housing	PBT (UL 94V-0)

Accessories

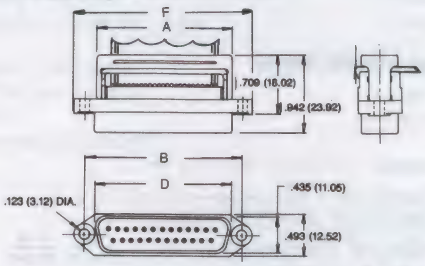
Locator Plate **9DS0001**

Dimensions inch (mm)

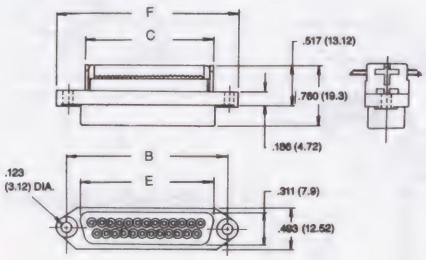
Socket with Strain Relief



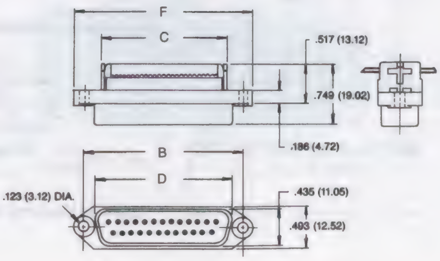
Plug with Strain Relief



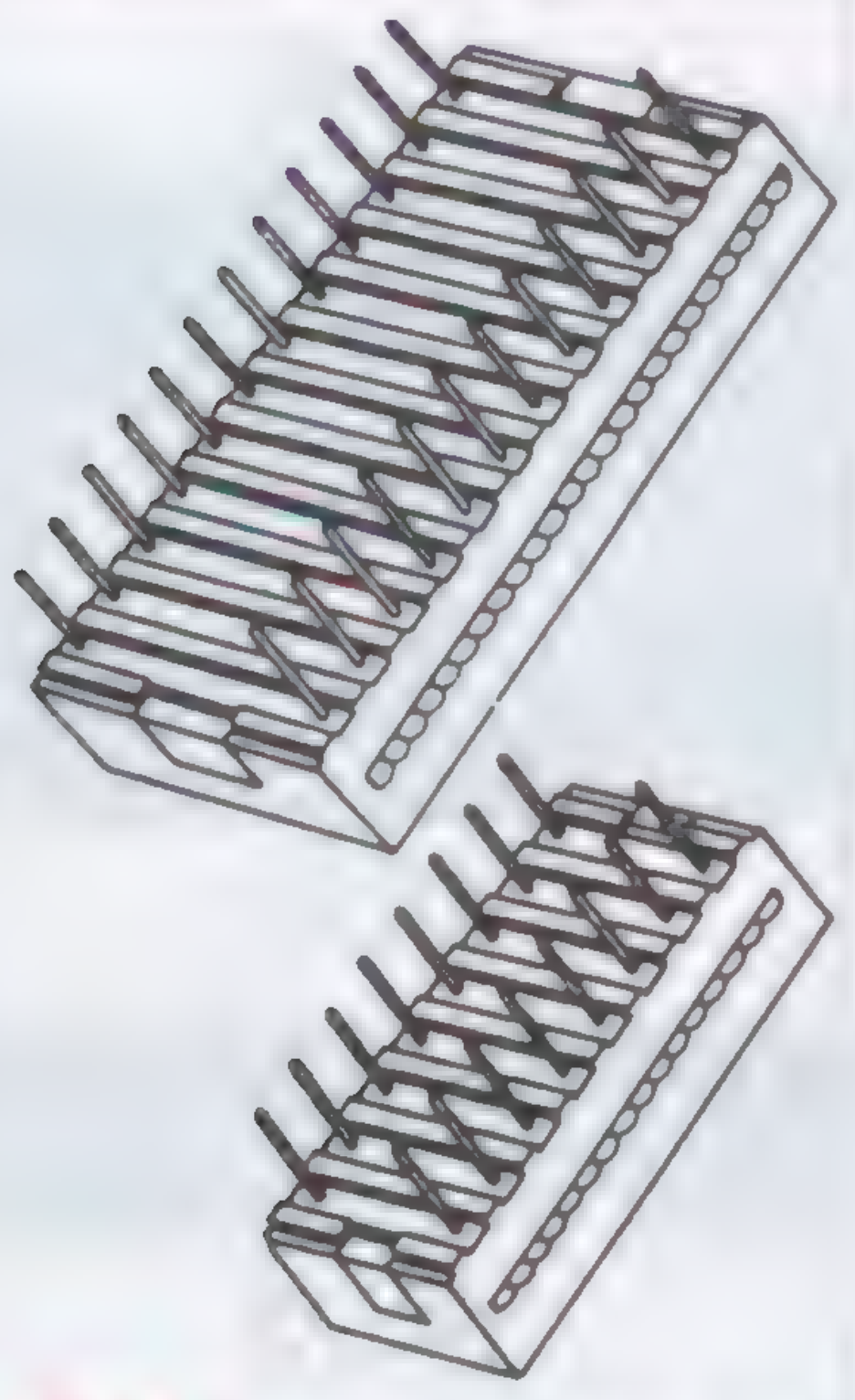
Socket without Strain Relief



Plug without Strain Relief



D.I.P. Connectors

	Positions	Body & Cover	Dimensions							
			A		B		C		D	
			Inch	mm	Inch	mm	Inch	mm	Inch	mm
	14	**9D0P014**	.600	15.24	.780	19.82	.300	7.62	.420	10.67
	16	**9D0P016**	.700	17.78	.880	22.36	.300	7.62	.420	10.67
	24	**9D0P024**	1.100	27.94	1.280	32.52	.600	15.24	.720	18.29
Recognized under the Component Program of Underwriters Laboratories, Inc. *	40	**9D0P040**	1.900	48.26	2.080	52.84	.600	15.24	.720	18.29

*By request only.

Engineering Data

Items	Specifications
Temperature range	−55C to 105C
Current rating	1A DC
Contact resistance	10m Ω max. at 6V DC, 0.3A
Insulation resistance	1000M Ω min. at 500V DC
Dielectric withstanding voltage	500V AC for 1 minute
U.L. voltage rating	30V DC
Wire size Flat Cable for IDC	.050″ (1.27 mm) spacing, AWG #28 (stranded) or #30 (solid)
Thickness of PC board (standard)	.062″ (1.6 mm)
Materials: Contacts	Base metal of phosphor-bronze #521 with selective gold-plating
Housing	PBT (UL 94V-0)

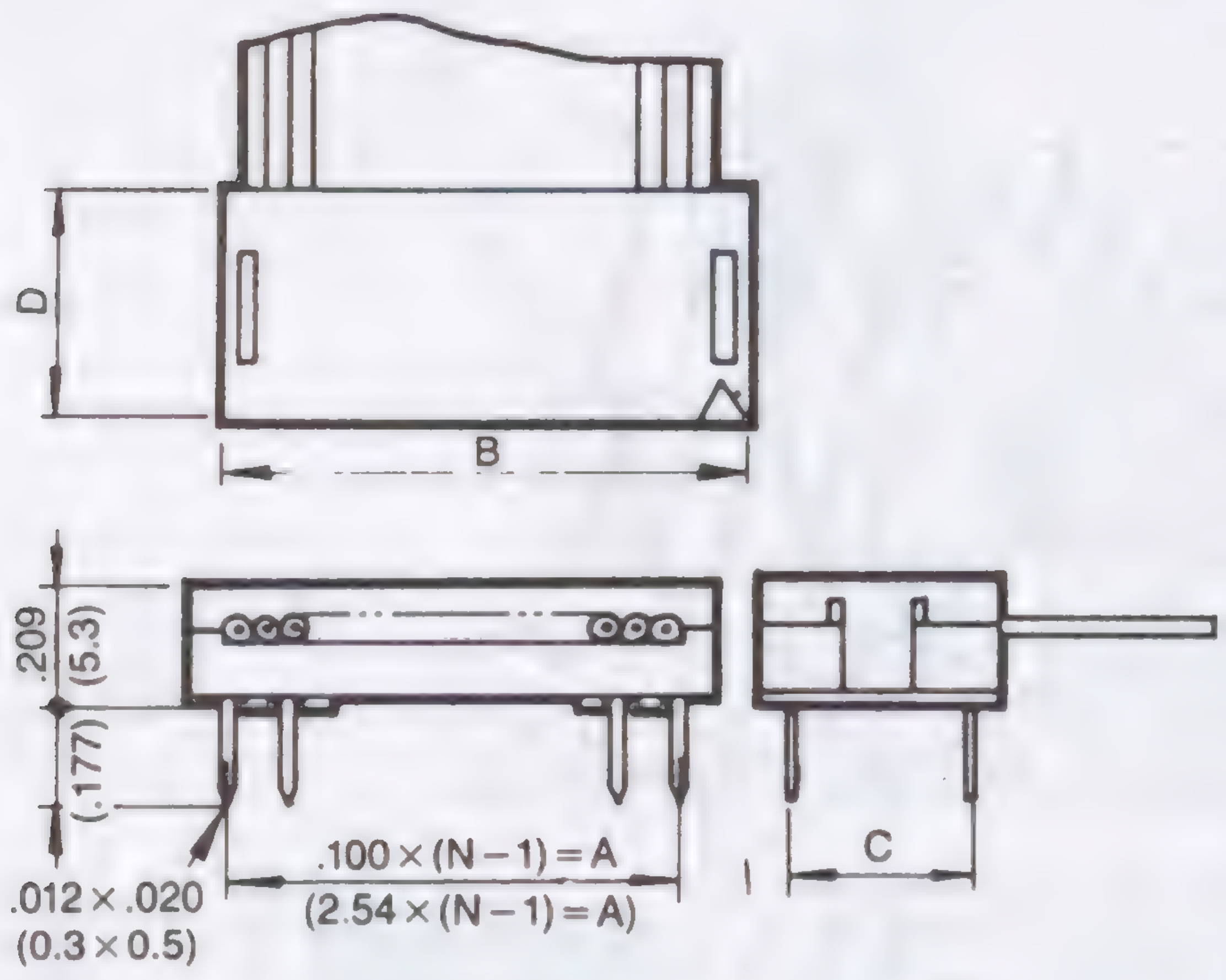
- Gold-plated for reliable connections
- Plugs into IC sockets or can be soldered for permanent connections
- Low-profile installation on PC board
- High-reliability original U-contact (double-action of IDC)
- Many diversifications (10-40 pins)
- Solvent-resistant resin (PBT) housing
- U.L. recognized and CSA* certified

*By request only

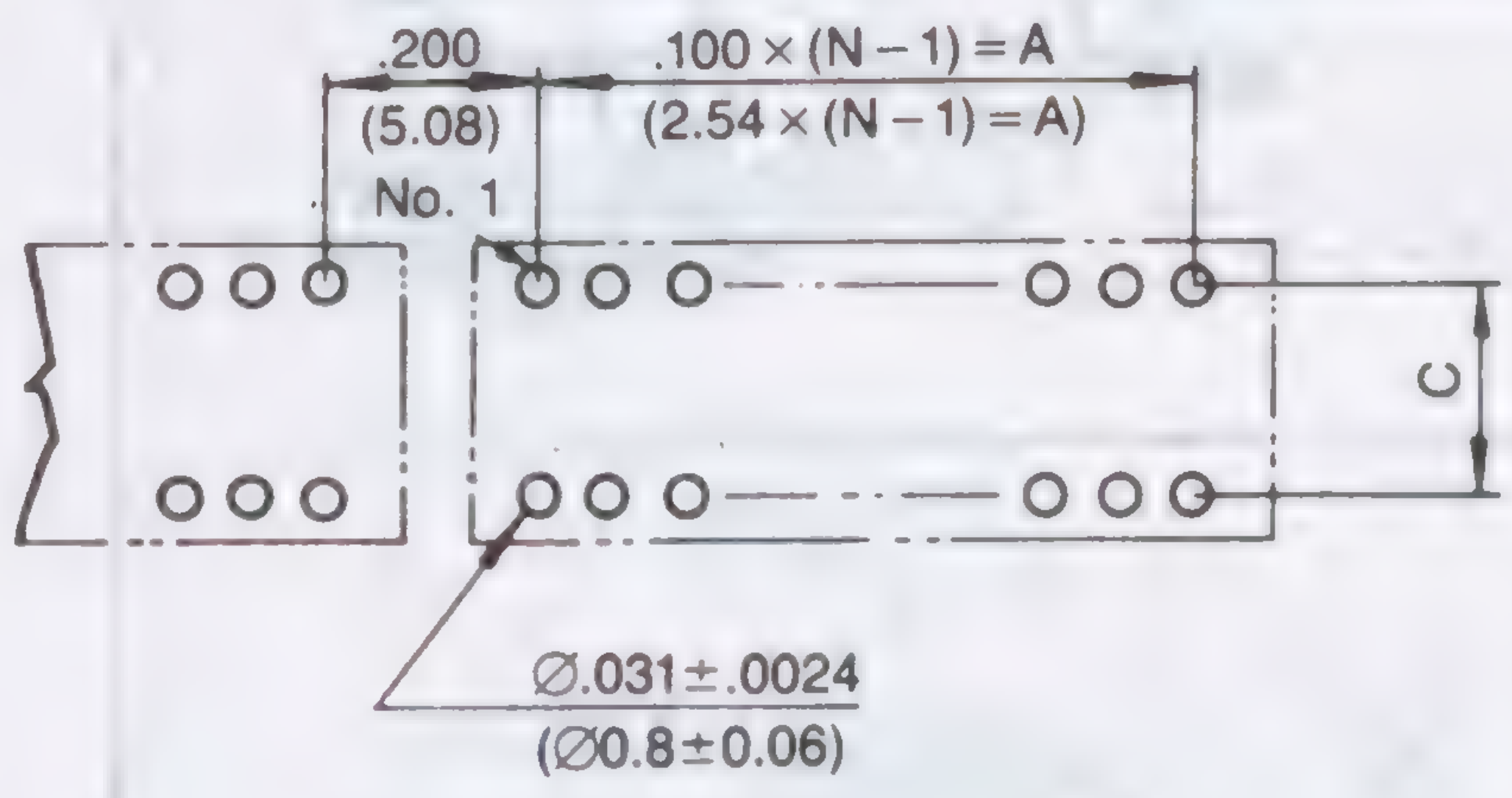
Accessories

14, 16, 24 & 40 Position	**9D00001**
14 Position	**9D00002**
16 Position	**9D00003**
24 & 40 Position	**9D00004**

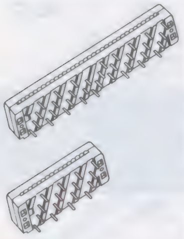
Dimensions inch (mm)



Mounting Hole Layout



P.C.B. Transition Connectors

	Positions	Body & Cover	Dimensions			
			A		B	
			Inch	mm	Inch	mm
	10	**9PTP010**	.700	17.78	.450	11.43
	16	**9PTP016**	1.000	25.40	.750	19.05
	20	**9PTP020**	1.200	30.48	.950	24.13
	26	**9PTP026**	1.500	38.10	1.250	31.75
	34	**9PTP034**	1.900	48.26	1.650	41.91
	40	**9PTP040**	2.200	55.88	1.950	49.53
Recognized under the Component Program of Underwriters Laboratories, Inc.	50	**9PTP050**	2.700	68.58	2.450	62.23
*	60	**9PTP060**	3.200	81.28	2.950	74.93

*By request only.

Engineering Data

Items	Specifications
Temperature range	−55C to 105C
Current rating	1A DC
Contact resistance	10m Ω max. at 6V DC, 0.3A
Insulation resistance	1000M Ω min. at 500V DC
Dielectric withstanding voltage	500V AC for 1 minute
U.L. voltage rating	30V DC
Wire size Flat Cable for IDC	.050″ (1.27 mm) spacing, AWG #28 (stranded) or #30 (solid)
Thickness of PC board (standard)	.062″ (1.6 mm)
Materials: Contacts	Base metal of phosphor-bronze #521
Housing	PBT (UL 94V-0)
Terminals	Tin plated

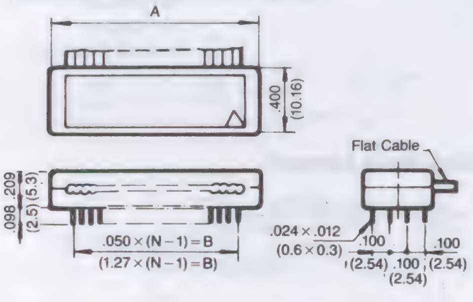
- Excellent solderability and reliable permanent PC board connections
- High-reliability original U-contact (double-action of IDC)
- Solvent-resistant resin (PBT) housing
- U.L. recognized and CSA* certified
- Tin-plated terminals

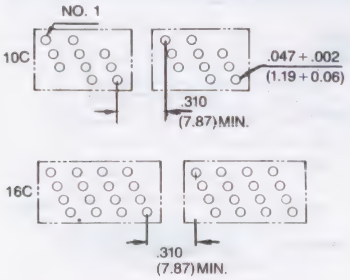
*By request only

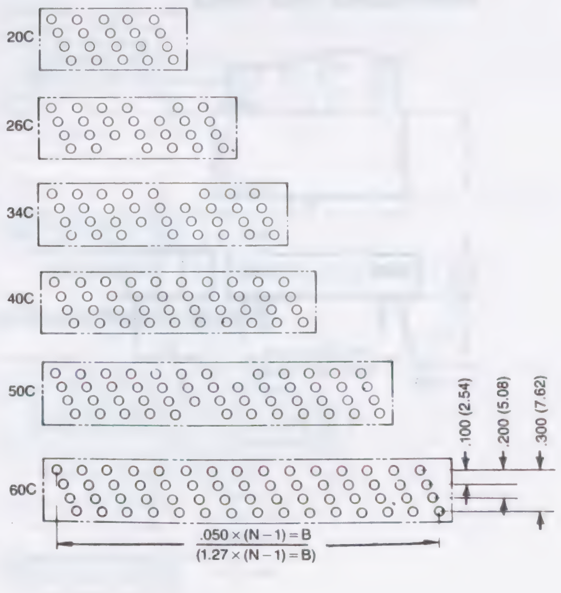
Accessories

Locator Plate **9P00001**

Dimensions inch (mm)



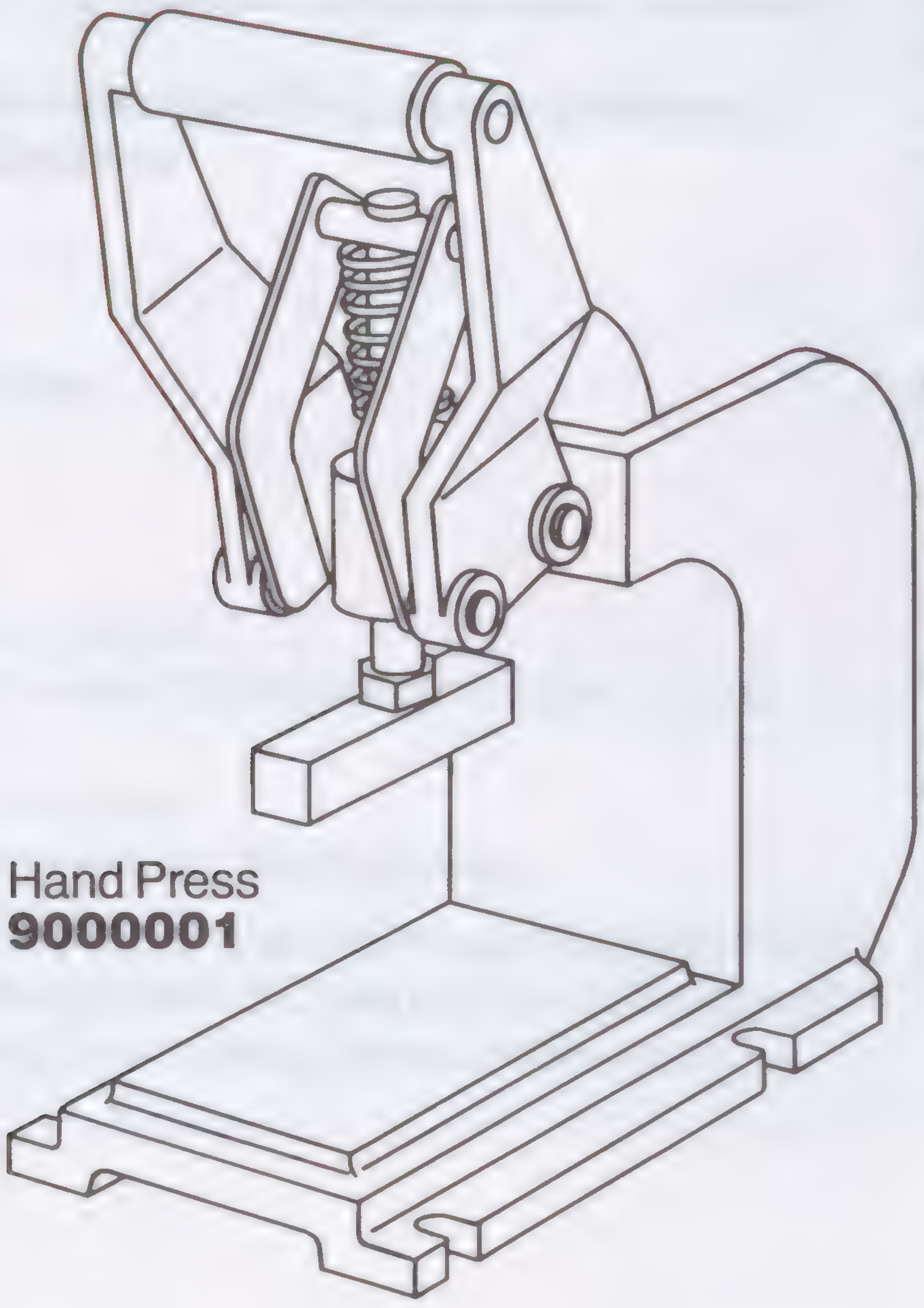




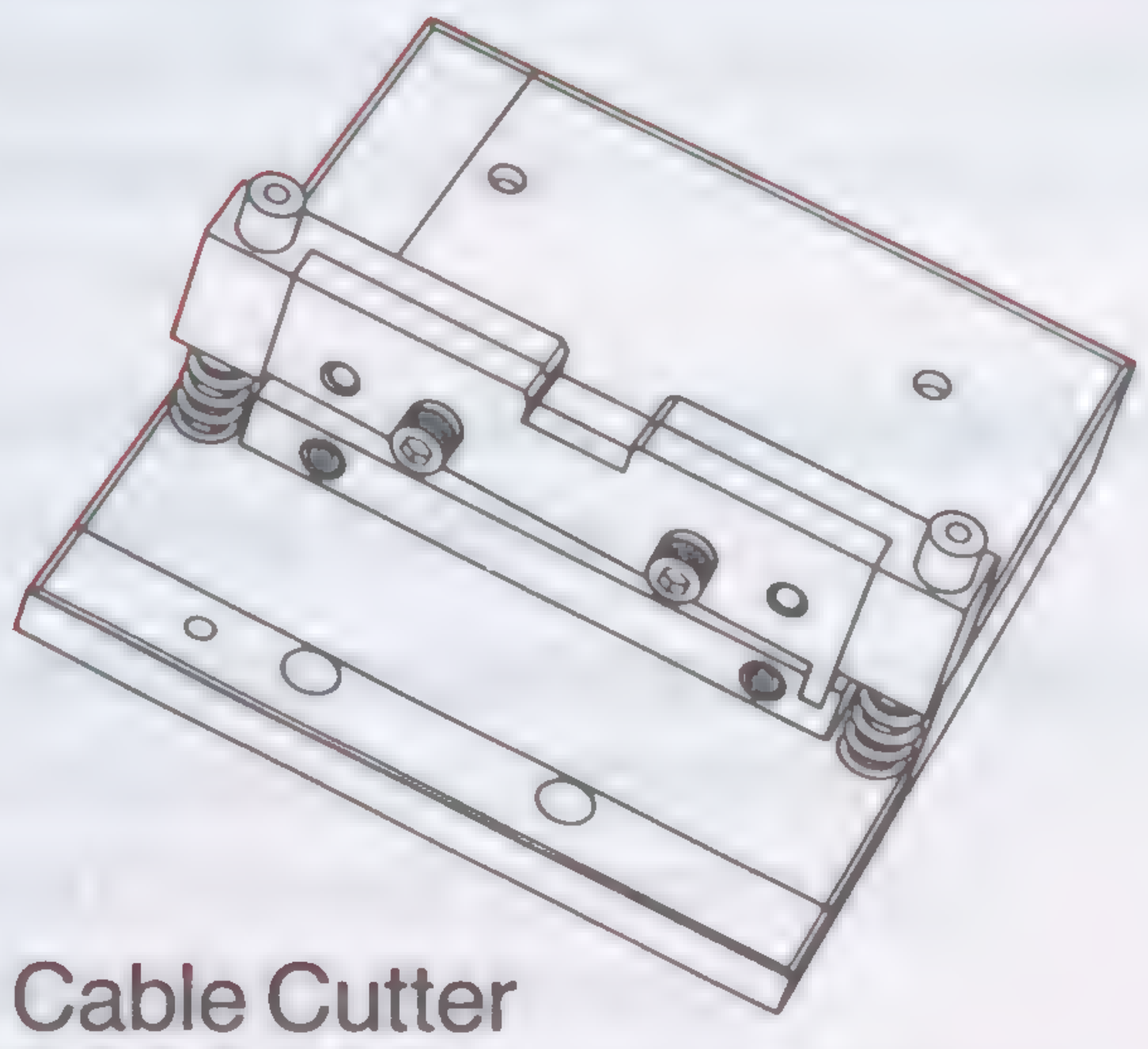
Cable Accessories and Assembling Tools

For fast, easy, dependable installations

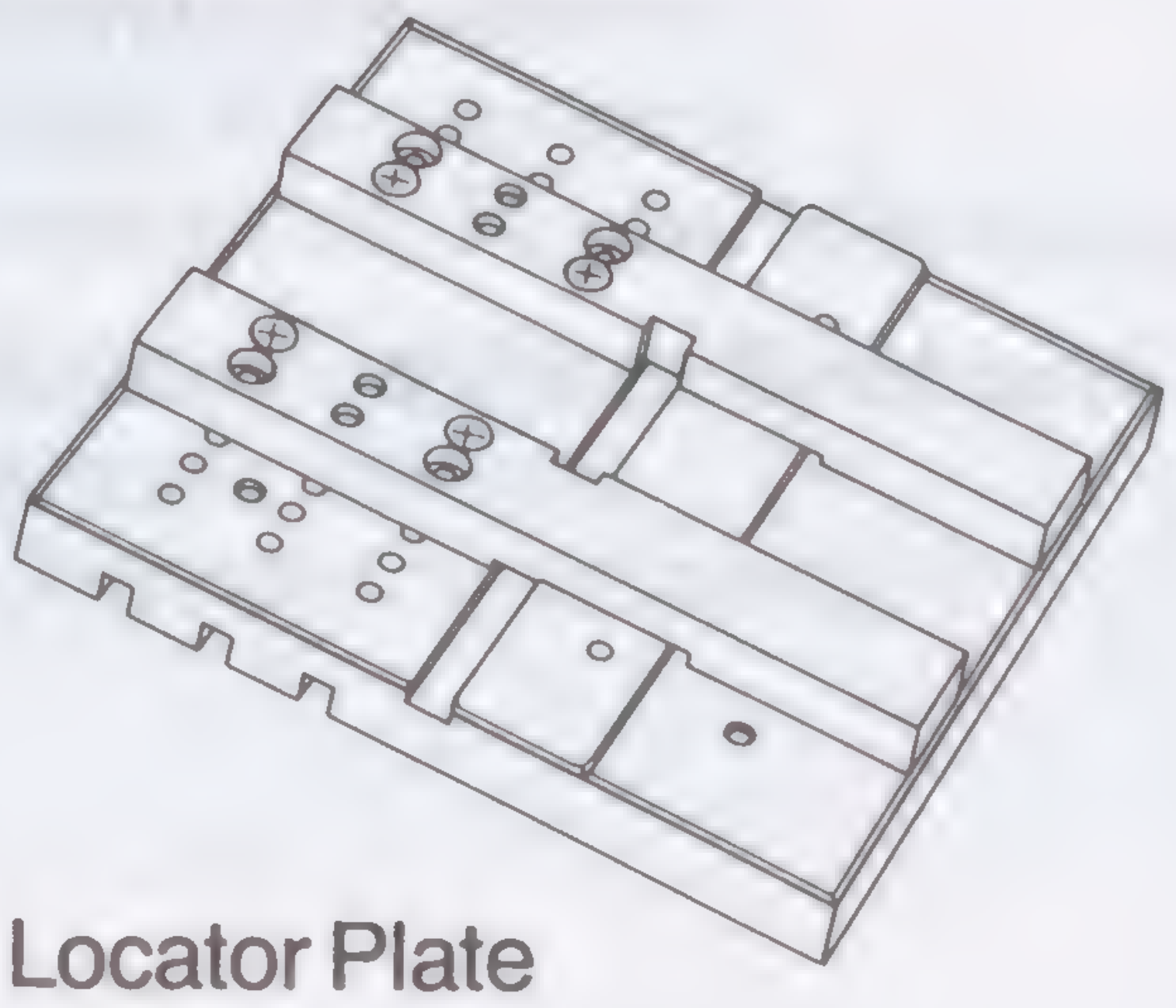
Accessories and Tools	Description	Trade and U.L. Style Number
Header Connector Accessories (3 sided and 4 sided)	Locator plate for hooks 571 Hooks & pins 415 Hooks & pins Polarization key (clip)	9H00002 9H00004 9H00006 9H00005
Socket Connector Accessories	STD. Socket W/Strain Relief ▪ Locator plate ▪ Polarization key Low profile socket ▪ Locator plate ▪ Polarization key Male Socket ▪ Locator plate ▪ Polarization key (clip)	 9S00001 9S00002 8S00001 9S00002 8SP0001 9H00005
Card-Edge Connector Accessories	Locator plate Polarization key	9C00001 9C00002
D.I.P. Connector Accessories	Locator plates ▪ 14, 16, 24, & 40 ▪ 14 Position ▪ 16 Position ▪ 24 & 40	 9D00001 9D00002 9D00003 9D00004
P.C.B. Transition Connector Accessories	Locator plate	9P00001
D-Sub Miniature Connectors	Locator plate	9DS0001
Mag-Master™ Connector	No tools required	
S.H.E. Connector	Locator plate	9E00001
Assembling Tools	Hand press Cable cutter	9000001 9000002



Hand Press
9000001



Cable Cutter
9000002



Locator Plate

Plenum Cables

Eliminates the need for using conduit when installing cables in air plenums.

Because of its flame-resistance and low smoke-emission properties, the special compound used in Belden Plenum cable jackets and insulations has been accepted under the provisions of the National Electrical Code and classified by Underwriters Laboratories Inc.* for use without conduit in air plenums.

While Belden Plenum Cable costs more than conventional cable, the overall installed cost is dramatically lower because it eliminates the added cost of conduit along with the increased time and labor required to install it.

In a typical modern commercial building, cables are installed in the enclosed space between drop ceilings and the floors from which they are suspended. This area is also frequently used as a return air plenum for a building's heating and cooling system. Because these air ducts often run across an entire story unobstructed, they can be an invitation to disaster if fire breaks out. Heat, flames and smoke can spread rapidly throughout the air duct system and building if the fire is able to feed on combustible materials (such as cable insulations) in the plenum.

This is why the National Electrical Code requires that conventional cables always be installed in metal conduit when used in plenums.

Custom Design Center

If you have a new or unusual application or you cannot find cable in this section which meets your technical requirements, contact Belden's Product Engineering Group. Phone 317/983-5200.

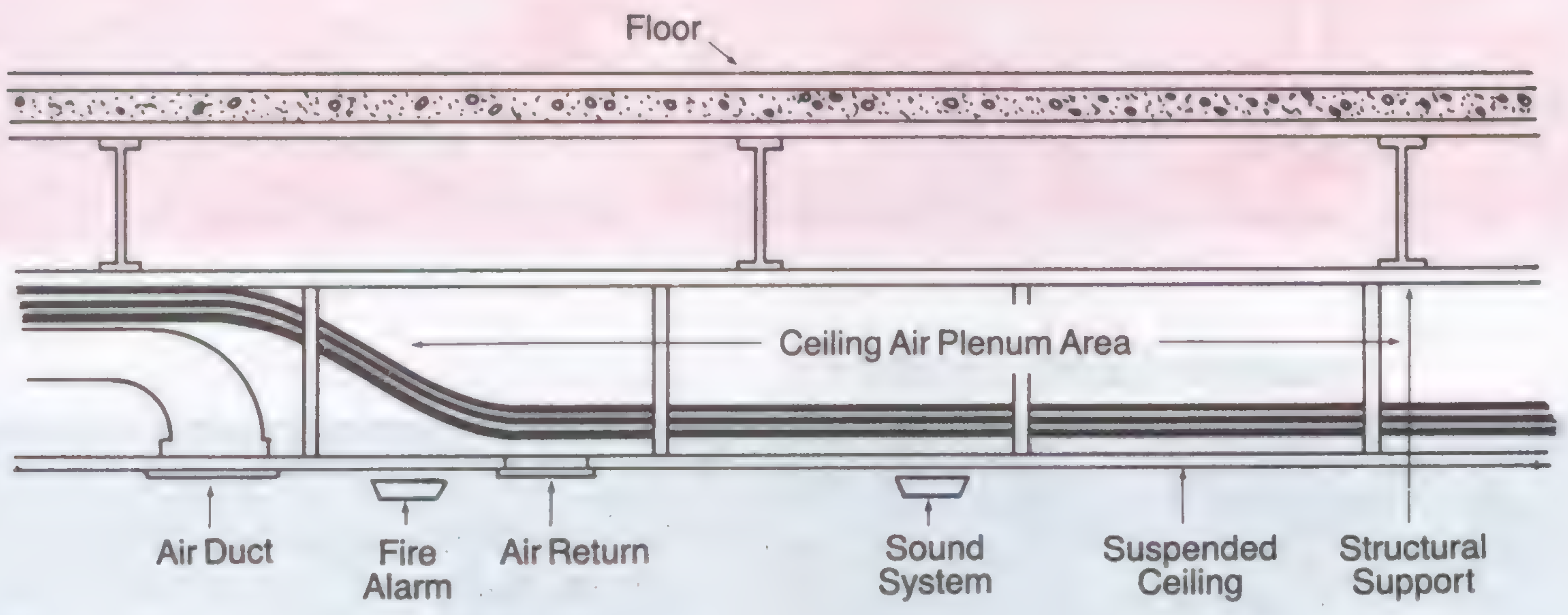
The cables in this section are organized as follows:

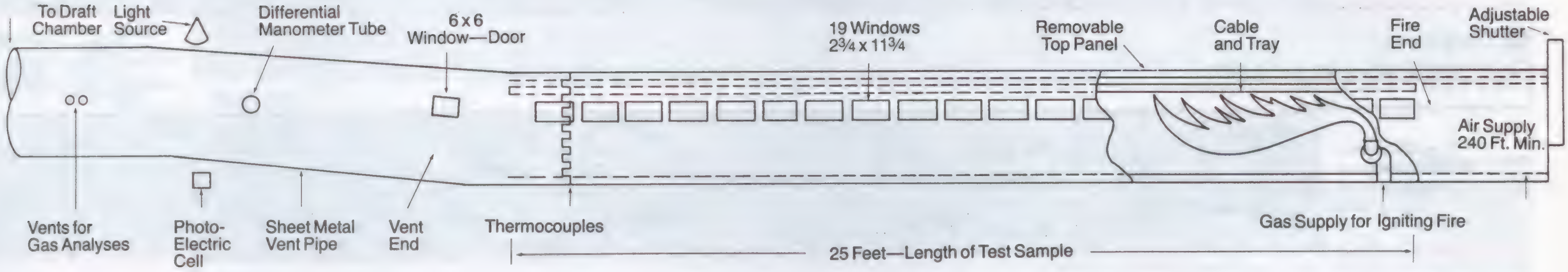
NEC ARTICLE 725-2(b)	
1. Teflon® Jacketed	Page(s)
a) Multi-conductor	122 – 126
b) Paired	127 – 130
c) Coaxial	131 & 132
d) Twinaxial	133
e) Triaxial	133
2. Fluorocopolymer Jacketed	
a) Paired	134 & 135
b) Coaxial	136
NEC ARTICLE 760-4(d)	
1. Teflon Jacketed	
a) Multi-conductor	137

®DuPont trademark

U.L. Standard 910, Plenum Cable Flame Test

Typical Ceiling Air Plenum





Using a modified "Steiner" tunnel equipped with a special rack to hold test cables, Underwriters Laboratories Inc. established procedures by which to test and classify the flame spread and smoke emissions for cables used in air plenums.

Belden Plenum Cables Meet National Electrical Code Requirements

Unlike ordinary cables with flammable insulations, Belden Plenum Cables are made of a special insulation compound that resists flame-spread and produces very little smoke even when exposed to direct flame. In fact, they have proven so effective in test, that Underwriters Laboratories Inc. has classified them as meeting the exceptions in the National Electrical Code for installation in ceiling air plenums with no metal conduit required.

For easy installation and outstanding performance, choose Belden Plenum Cables

- Coaxial Cables
- Twinaxial Cables
- Triaxial Cables
- Shielded and Unshielded Cables
- Multi-paired Cables
- Low Capacitance Cables

Belden Plenum Cables

- Resist fire and reduce smoke emission
- Eliminate the need for conduit—and cut installation costs by 30 to 50% or more.
- Resist aging, cracking and chemicals
- Retain excellent mechanical and dielectric properties

Because plenums have proven to be so instrumental in helping fire and smoke spread, the 1975 National Electrical Code prohibited the use of electrical cables in plenums and ducts unless these cables were installed in metal conduit.

In 1978, Sections 725-2(b) (signaling cables), 760-4(d) (fire protection cable) and 800-3(d) (communication/telephone cables) of the National Electrical Code* allowed that cables "listed as having adequate fire-resistant and low-smoke producing characteristics shall be permitted for ducts, hollow spaces used as ducts, and plenums other than those described in Section 300-22(a)."

In 1981 the jacket and insulation compound used in Belden Plenum Cables was tested and found acceptable under the terms of the National Electrical Code and was classified by Underwriters Laboratories Inc. for use without conduit in air return ducts and plenums.

Recommended applications for NEC article 725-2(b) Signaling Cable

Data Communications Systems

- Electronic cash registers
- Data processing terminals
- Video display screens
- Other computer peripherals

Security Systems

- Burglar alarm systems
- Closed circuit TV surveillance equipment

Communications Systems

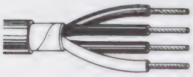
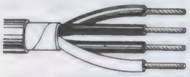
- Intercom networks
- Background music systems

Plenum

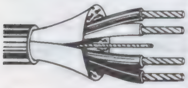
NEC Article 725-(b), Class 2 Circuits, U.L. Classified

CLASSIFIED UL

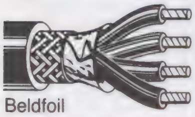
Multi-Conductor Unshielded Control Cables

Description	Trade Number & U.L. Type	No. of Cond. / Colors	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm
22 Gage Stranded Conductors (7x30)											
	**88444** 200C Subject 13 Non-conduit	4 Black White Red Green	100 500§ 1000§	30.5 152.4 304.8	4.3 15.6 29.9	.010	.25	.022	.56	.168	4.27
						Product Description: Tinned copper, Teflon◑ insulated, conductors cabled, overall tape wrap, red transparent Teflon jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.					
18 Gage Stranded Conductors (19x30)											
	**88489** 200C Subject 13 Non-conduit	4 Black White Red Green	100 500§ 1000§	30.5 152.4 304.8	4.4 23.0 48.5	.010	.25	.022	.56	.209	5.31
						Product Description: Tinned copper, Teflon insulated, conductors cabled, overall tape wrap, red transparent Teflon jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.					

Multi-Conductor Overall Beldfoil® Shield Control and Instrumentation Cables

Description	Trade Number & U.L. Type	No. of Cond. / Colors	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Nominal Capacitance * pF/ft.	Nominal Capacitance * pF/m	Nominal Capacitance ** pF/ft.	Nominal Capacitance ** pF/m
18 Gage Stranded Conductors (19x30)																
 Beldfoil® 100% Shield Coverage	**89418** 200C Subject 13 Non-conduit	4 Black White Red Green	100 500§ 1000§	30.5 152.4 304.8	6.6 27.2 52.9	(19x30)	.010	.25	.022	.56	.224	5.69	27	89	57	187
						Product Description: Tinned copper, Teflon insulated, conductors cabled, 20 AWG stranded tinned copper drain wire, Beldfoil aluminum-polyester shield overall, 100% shield coverage, red transparent Teflon jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.										

Multi-Conductor Overall Foil/Braid Shield Control and Instrumentation Cables

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Nominal Capacitance * pF/ft.	Nominal Capacitance * pF/m	Nominal Capacitance ** pF/ft.	Nominal Capacitance ** pF/m
24 Gage Stranded Conductors (19x36)															
 Beldfoil 100% Shield Coverage	**83503†** 200C Subject 13 Non-conduit	3	100 500§ 1000§	30.5 152.4 304.8	4.4 16.0 28.0	.010	.25	.023	.58	.168	4.26	21	69	38	124
						Product Description: Tinned copper conductors, Teflon insulated, conductors cabled, Beldfoil aluminum-polyester shield with 85% tinned copper braid shield, Teflon jacket, red tint. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit. Color code chart No. 2, Technical Information Section.									

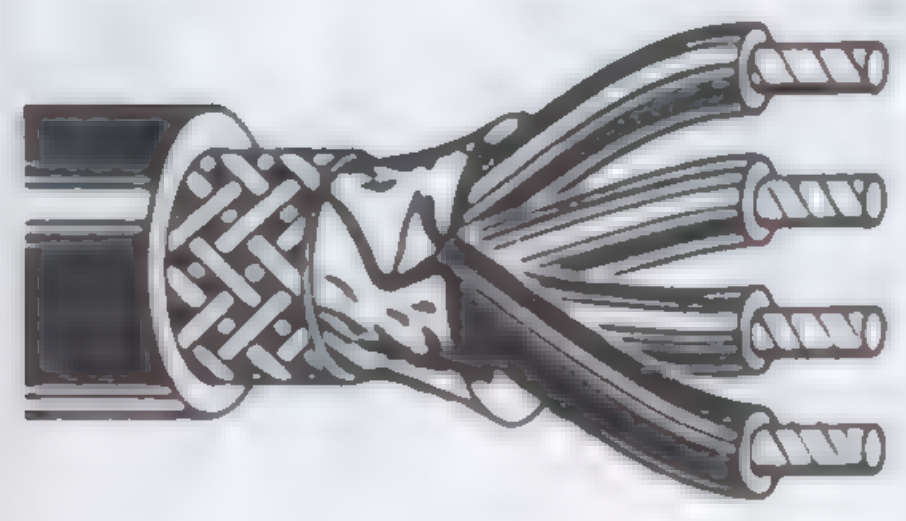
†Passes the VW-1 Vertical Wire Flame Test.
◑DuPont trademark
§Spools are one piece, but length may vary ± 10% from length shown.
*Capacitance between conductors.
**Capacitance between 1 conductor and remaining conductors connected to shield.

Multi-Conductor Overall Foil and Braid Shield

Control and Instrumentation Cables

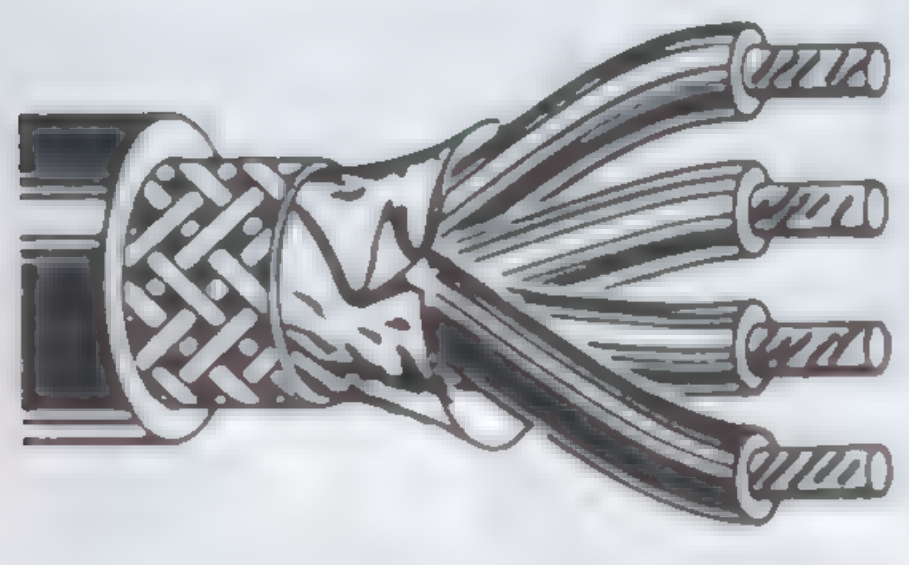
24 Gage (cont'd.)
Stranded Conductors (19x36)

Product Description
Tinned copper conductors, Teflon® insulated, conductors cabled, Beldfoil aluminum-polyester shield with 85% tinned copper braid shield, Teflon jacket, red tint. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit. Color code chart No. 2, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m		inch	mm	inch	mm	inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil® 100% Shield Coverage 200C Subject 13 Non-Conduit	83504	4	100 500§ 1000§	30.5 152.4 304.8	4.8 17.9 34.5	.010	.25	.023	.58	.179	4.54	20	65	36	118
	83506	6	100 500§ 1000§	30.5 152.4 304.8	5.6 22.0 42.6	.010	.25	.023	.58	.206	5.23	18	59	34	111
	83509	9	100 500§ 1000§	30.5 152.4 304.8	6.7 27.4 53.4	.010	.25	.023	.58	.233	5.91	18	59	34	111
	83512	12	100 500§ 1000§	30.5 152.4 304.8	7.8 33.5 65.0	.010	.25	.023	.58	.256	6.50	18	59	34	111
	83515	15	100 500§ 1000§	30.5 152.4 304.8	9.5 34.0 62.0	.010	.25	.023	.58	.280	7.11	18	59	34	111

22 Gage
Stranded Conductors (19x34)

Product Description
Tinned copper conductors, Teflon insulated, conductors cabled, Beldfoil aluminum-polyester shield with 85% tinned copper braid shield, Teflon jacket, red tint. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit. Color code chart No. 2, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m		inch	mm	inch	mm	inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil 100% Shield Coverage 200C Subject 13 Non-conduit	83552	2	100 500§ 1000§	30.5 152.4 304.8	4.3 15.5 29.7	.010	.25	.023	.58	.174	4.41	24	78	42	137
	83553	3	100 500§ 1000§	30.5 152.4 304.8	5.0 18.9 36.3	.010	.25	.023	.58	.181	4.59	23	75	40	131
	83554	4	100 500§ 1000§	30.5 152.4 304.8	5.4 21.0 40.6	.010	.25	.023	.58	.194	4.92	22	72	38	124
	83556	6	100 500§ 1000§	30.5 152.4 304.8	6.5 26.4 51.5	.010	.25	.023	.58	.224	5.68	20	65	36	118
	83559	9	100 500§ 1000§	30.5 152.4 304.8	8.0 36.4 66.8	.010	.25	.023	.58	.255	6.47	20	65	36	118

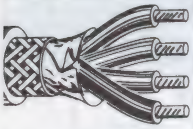
*Capacitance between conductors.
**Capacitance between 1 conductor and remaining conductors connected to shield.
®DuPont trademark
§Spools are one piece, but length may vary ± 10% from length shown.

Multi-Conductor Overall Foil and Braid Shield

Control and Instrumentation Cables

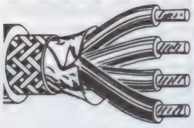
22 Gage (cont'd.)
Stranded Conductors (19x34)

Product Description
Tinned copper conductors, Teflon® insulated, conductors cabled, Beldfoil aluminum-polyester shield with 85% tinned copper braid shield, Teflon jacket, red tint. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit. Color code chart No. 2, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Nominal Capacitance * pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil® 100% Shield Coverage 200C Subject 13 Non-conduit	**83562**	12	100 500§ 1000§	30.5 152.4 304.8	9.3 43.1 80.2	.010	.25	.023	.58	.281	7.13	20	65	36	118
	83569	19	100 500§ 1000§	30.5 152.4 304.8	14.3 58.0 110.0	.010	.25	.023	.58	.324	8.22	20	65	36	118

20 Gage
Stranded Conductors (19x32)

Product Description
Tinned copper conductors, Teflon insulated, conductors cabled, Beldfoil aluminum-polyester shield with 85% tinned copper braid shield, Teflon jacket, red tint. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit. Color code chart No. 2, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Nominal Capacitance * pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil 100% Shield Coverage 200C Subject 13 Non-conduit	**83602**	2	100 500§ 1000§	30.5 152.4 304.8	4.8 18.2 35.4	.010	.25	.023	.58	.190	4.82	27	88	48	157
	83604	4	100 500§ 1000§	30.5 152.4 304.8	6.3 25.4 49.4	.010	.25	.023	.58	.213	5.41	22	72	40	131
	83606	6	100 500§ 1000§	30.5 152.4 304.8	7.4 32.0 64.4	.010	.25	.023	.58	.248	6.29	21	69	38	124
	83609	9	100 500§ 1000§	30.5 152.4 304.8	9.7 45.2 84.5	.010	.25	.023	.58	.283	7.18	21	69	38	124
	83612	12	100 500§ 1000§	30.5 152.4 304.8	11.6 54.8 106.2	.010	.25	.023	.58	.314	7.97	21	69	38	124
	83619	19	100 500§ 1000§	30.5 152.4 304.8	19.0 82.0 165.0	.010	.25	.033	.83	.384	9.75	21	69	38	124

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
®DuPont trademark
§Spools are one piece, but length may vary ±10% from length shown.

Plenum

NEC Article 725-(b), Class 2 Circuits, U.L. Classified

CLASSIFIED UL

BELDEN

COOPER INDUSTRIES

Multi-Conductor Overall Foil and Braid Shield

Control and Instrumentation Cables

18 Gage

Stranded Conductors (19x30)

Product Description

Tinned copper conductors, Teflon° insulated, conductors cabled, Beldfoil aluminum-polyester shield with 85% tinned copper braid shield, Teflon jacket, red tint. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit. Color code chart No. 2, Technical Information Section.

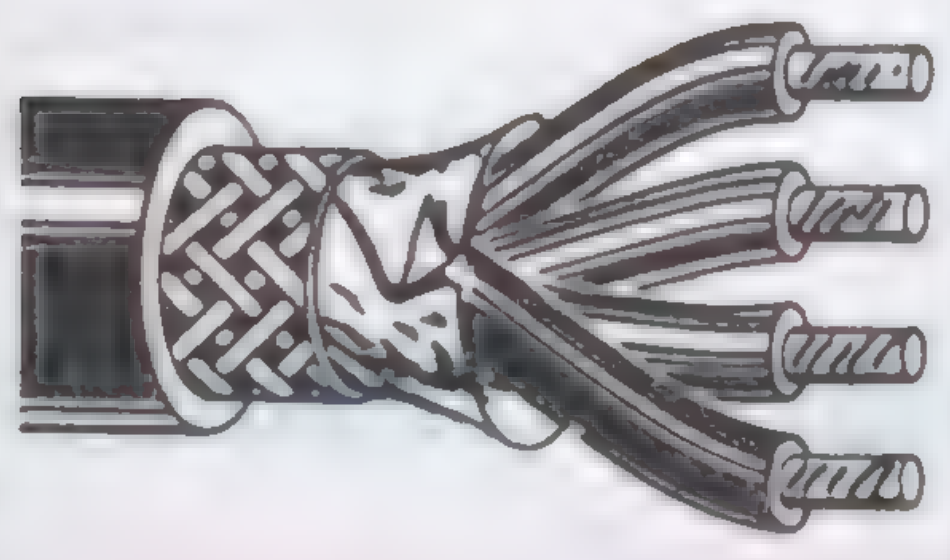
Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
	83652	2	100 500§ 1000§	30.5 152.4 304.8	5.6 21.6 41.9	.010	.25	.022	.56	.205	5.21	30	98	54	177
	83653	3	100 500§ 1000§	30.5 152.4 304.8	6.6 26.9 52.5	.010	.25	.022	.56	.214	5.44	27	88	50	164
Beldfoil® 100% Shield Coverage 200C Subject 13 Non-conduit	**83654**	4	100 500§ 1000§	30.5 152.4 304.8	7.2 30.6 61.4	.010	.25	.022	.56	.233	5.92	26	85	48	157
	83656	6	100 500§ 1000§	30.5 152.4 304.8	9.5 44.1 82.1	.010	.25	.022	.56	.272	6.91	25	82	45	147
	83659	9	100 500§ 1000§	30.5 152.4 304.8	12.2 57.3 109.4	.010	.25	.022	56	.313	7.95	25	82	45	147
	83662	12	100 500§ 1000§	30.5 152.4 304.8	18.1 77.6 156.0	.010	.25	.032	.81	.370	9.40	25	82	45	147

16 Gage

Stranded Conductors (19x29)

Product Description

Tinned copper conductors, Teflon insulated, conductors cabled, Beldfoil aluminum-polyester shield with 85% tinned copper braid shield, Teflon jacket, red tint. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit. Color code chart No. 2, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
	**83702**	2	100 500§ 1000§	30.5 152.4 304.8	6.3 25.3 49.1	.010	.25	.022	.56	.223	5.66	33	108	59	193
	83703	3	100 500§ 1000§	30.5 152.4 304.8	7.6 32.1 62.8	.010	.25	.022	.56	.235	5.97	31	101	55	180
Beldfoil® 100% Shield Coverage 200C Subject 13 Non-conduit	**83704**	4	100 500§ 1000§	30.5 152.4 304.8	8.9 41.1 76.0	.010	.25	.022	.56	.255	6.48	30	98	54	177
	83706	6	100 500§ 1000§	30.5 152.4 304.8	11.5 54.1 102.1	.010	.25	.022	.56	.299	7.59	27	88	49	160

*Capacitance between conductors.

**Capacitance between 1 conductor and other conductors connected to shield.

°DuPont trademark

§Spools are one piece, but length may vary ±10% from length shown.

Plenum

NEC Article 725-(b), Class 2 Circuits, U.L. Classified

Multi-Conductor Overall Foil and Braid Shield

Control and Instrumentation Cables

16 Gage (cont'd.)
Stranded Conductors (19x29)

Product Description
Tinned copper conductors, Teflon® insulated, conductors cabled, Beldfoil aluminum-polyester shield with 85% tinned copper braid shield, Teflon jacket, red tint. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit. Color code chart No. 2, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil® 100% Shield Coverage	**83709**	9	100 500§ 1000§	30.5 152.4 304.8	18.1 77.5 156.4	.010	.25	.032	.81	.365	9.27	27	88	49	160
	83712	12	100 500§ 1000§	30.5 152.4 304.8	21.9 96.8 194.6	.010	.25	.032	.81	.407	10.33	27	88	49	160
	83715	15	100 500§ 1000§	30.5 152.4 304.8	25.5 114.7 230.3	.010	.25	.032	.81	.449	11.40	27	88	49	160
	83719	19	100 500§ 1000§	30.5 152.4 304.8	29.8 136.2 273.3	.010	.25	.032	.81	.471	11.96	27	88	49	160

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
®DuPont trademark
§Spools are one piece, but length may vary ± 10% from length shown.

Plenum

NEC Article 725-(b), Class 2 Circuits, U.L. Classified

Paired Cables Unshielded

Sound, Audio and Control Cables

22 Gage
Stranded Conductors (7x30)

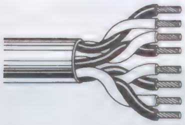
Product Description
Tinned copper, Teflon® insulated, twisted pairs, overall tape wrap, red transparent Teflon jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.

Description	Trade Number & U.L. Type	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		Colors	ft.	m		Inch	mm	Inch	mm	Inch	mm
	88442 200C Subject 13 Non-conduit	1 Black Red	100 500§ 1000§	30.5 152.4 304.8	3.5 11.6 19.1	.010	.25	.022	.56	.147	3.73

Sound, Audio and Control Cables

22 Gage
Stranded Conductors (7x30)

Product Description
Tinned copper, Teflon insulated, twisted pairs, red transparent Teflon jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.

Description	Trade Number & U.L. Type	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		Colors	ft.	m		Inch	mm	Inch	mm	Inch	mm
	88741	2 Blk./Red Blk./Wht.	100 500§ 1000§	30.5 152.4 304.8	4.7 17.5 33.5	.010	.25	.022	.56	.219	5.56
	88742	3 Blk./Red Blk./Wht. Blk./Grn.	100 500§ 1000§	30.5 152.4 304.8	5.4 20.8 40.7	.010	.25	.022	.56	.232	5.89
	88757	4 Blk./Red Blk./Wht. Blk./Grn. Blk./Blue	100 500§ 1000§	30.5 152.4 304.8	6.1 27.5 49.1	.010	.25	.022	.56	.254	6.45
200C Subject 13 Non-conduit	88743	6 Blk./Red Blk./Wht. Blk./Grn. Blk./Blue Blk./Yel. Blk./Brn.	100 500§ 1000§	30.5 152.4 304.8	7.8 35.5 65.0	.010	.25	.022	.56	.294	7.47

Sound, Audio and Control Cables

18 Gage
Stranded Conductors (19x30)

Product Description
Tinned copper, Teflon insulated, twisted pairs, overall tape wrap, red transparent Teflon jacket.150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.

Description	Trade Number & U.L. Type	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		Colors	ft.	m		Inch	mm	Inch	mm	Inch	mm
	89740 200C Subject 13 Non-conduit	1 Black Red	100 500§ 1000§	30.5 152.4 304.8	4.5 16.7 32.0	.010	.25	.022	.56	.180	4.57

®DuPont trademark
§Spools are one piece, but length may vary ± 10% from length shown.

Plenum

NEC Article 725-(b), Class 2 Circuits, U.L. Classified

Paired Cables Overall Beldfoil® Shield

Instrumentation, Computer and P.O.S. Cables

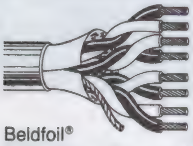
24 Gage

Stranded Conductors (7x32)

Teflon® Insulated

Product Description

Tinned copper, Teflon insulated, twisted pairs, 24 AWG stranded tinned copper drain wire, overall Beldfoil aluminum-polyester shield, red transparent Teflon jacket. 150V. NEC Class 2 Classified for use in an air plenum non-conduit.

Description	Trade Number & U.L. Type	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
		Colors	ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m
 Beldfoil® 100% Shield Coverage 200C Subject 13 Non-conduit	**89503**	3 Blk./Wht. Blk./Red Blk./Grn.	100 500§ 1000§	30.5 152.4 304.8	4.9 18.6 35.9	.010	.25	.022	.56	.214	5.44	20	66	36	118
	89504	4 Blk./Wht. Blk./Red Blk./Grn. Blk./Blue	100 500§ 1000§	30.5 152.4 304.8	5.5 21.7 42.7	.010	.25	.022	.56	.235	5.97	20	66	36	118
	89505	5 Blk./Wht. Blk./Red Blk./Grn. Blk./Blue Blk./Yel.	100 500§ 1000§	30.5 152.4 304.8	6.2 24.4 49.5	.010	.25	.022	.56	.260	6.60	20	66	36	118

Sound, Broadcast and Instrumentation Cables

Description	Trade Number & U.L. Type	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
		Colors	ft.	m		Inch	mm	Inch	mm	Inch	pF mm	* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m

24 Gage

Stranded Conductors (7x32)

Description	Trade Number & U.L. Type	No. of Pairs / Colors	ft.	m	Std. Unit Lbs. ea.	Insulation Inch	Insulation mm	Jacket Inch	Jacket mm	O.D. Inch	O.D. mm	* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m
Beldfoil 100% Shield Coverage	**88641** 200C Subject 13 Non-conduit	1 Black Red	100 500§ 1000§	30.5 152.4 304.8	3.5 11.3 18.5	.010	.25	.022	.56	.140	3.56	23	75	51	167
						Product Description: Tinned copper, Teflon insulated, twisted pair, Beldfoil aluminum-polyester shield, 24 AWG stranded tinned copper drain wire, red tint Teflon jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.									

22 Gage

Stranded Conductors (7x30)

Description	Trade Number & U.L. Type	No. of Pairs / Colors	ft.	m	Std. Unit Lbs. ea.	Insulation Inch	Insulation mm	Jacket Inch	Jacket mm	O.D. Inch	O.D. mm	* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m
Beldfoil 100% Shield Coverage	**88761** 200C Subject 13 Non-conduit	1 Black Red	100 500§ 1000§	30.5 152.4 304.8	3.8 13.1 22.3	.010	.25	.022	.56	.152	3.86	27	89	47	154
						Product Description: Tinned copper, Teflon insulated, twisted pair, Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, red tint Teflon jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.									

18 Gage

Stranded Conductors (19x30)

Description	Trade Number & U.L. Type	No. of Pairs / Colors	ft.	m	Std. Unit Lbs. ea.	Insulation Inch	Insulation mm	Jacket Inch	Jacket mm	O.D. Inch	O.D. mm	* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m
Beldfoil 100% Shield Coverage	**88760** 200C Subject 13 Non-conduit	1 Black Red	100 500§ 1000§	30.5 152.4 304.8	7.9 18.8 36.3	.010	.25	.022	.56	.183	4.65	33	108	59	194
						Product Description: Tinned copper, Teflon insulated, twisted pair, Beldfoil aluminum-polyester shield, 20 AWG stranded tinned copper drain wire, red transparent Teflon jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.									

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductor connected to shield.
®DuPont trademark
§Spools are one piece, but length may vary ± 10% from length shown.

Plenum

NEC Article 725-(b), Class 2 Circuits, U.L. Classified

Paired Individually Shielded

Computer Control and Instrumentation Cables For Low Capacitance Applications

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance			
			ft.	m		Center Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m

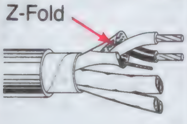
24 Gage

Stranded Conductors (7x32)

Foamed FEP Teflon° Insulated

Product Description

Tinned copper, foamed Teflon insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 24 AWG stranded tinned copper drain wire. FEP jacket. 150V.

Z-Fold 	**New 89729** 200C Subject 13 Non-conduit	2 Foamed FEB Teflon	100 500§ 1000§	30.5 152.4 304.8	4.3 24.2 42.3	24 (7x32) 24.0Ω/M' 78.74Ω/km	Beldfoil 18.0Ω/M' 59.05Ω/km 100% shield coverage	.284	7.21	100	78%	12.5	41.01	22.5	73.82
								Red tint Teflon jacket.							
Beldfoil® 100% Shield Coverage	**New 89730** 200C Subject 13 Non-conduit	3 Foamed FEP Teflon	100 500§ 1000§	30.5 152.4 304.8	5.3 29.8 53.6	24 (7x32) 24.0Ω/M' 78.74Ω/km	Beldfoil 18.0Ω/M' 59.05Ω/km 100% shield coverage	.294	7.46	100	78%	12.5	41.9	22.5	78.82
								Red tint Teflon jacket.							
Pair No. Color Combination 1 White paired with White/Red 2 White paired with White/Black 3 White paired with White/Green 4 White paired with White/Blue	**New 89728** 200C Subject 13 Non-conduit	4 Foamed FEP Teflon	100 500§ 1000§	30.5 152.4 304.8	6.5 36.4 66.7	24 (7x32) 24.0Ω/M' 78.74Ω/km	Beldfoil 18.0Ω/M' 59.05Ω/km 100% shield coverage	.354	8.99	100	78%	12.5	41.01	22.5	73.82
								Red tint Teflon jacket.							

22 Gage

Stranded Conductors (19x34)

Foamed FEP Teflon Insulated

Product Description

Tinned copper, foamed FEP Teflon insulated, twisted pair, with Beldfoil aluminum-polyester shield and 24 AWG stranded tinned copper drain wire. FEP jacket. 150V.

 100% Shield Coverage	**New 89182** 200C Subject 13 Non-conduit	1 Foamed FEP Teflon	100 500§ 1000§	30.5 152.4 304.8	7.5 33.7 61.5	22 (19x34) 14.0Ω/M' 45.9Ω/km	Duofoil® 18.0Ω/M' 59.05Ω/km 100% shield coverage	.322	8.18	150	78%	8.8	28.9	15.8	51.84
								Black tint Teflon jacket. Color code: White with Black stripe.							

*Capacitance between conductors.

**Capacitance between 1 conductor and other conductors connected to shield.

°DuPont trademark

§Spools are one piece, but length may vary ± 10% from length shown.

Plenum

NEC Article 725-(b), Class 2 Circuits, U.L. Classified

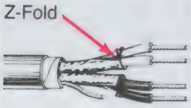
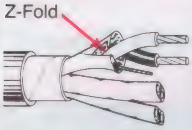
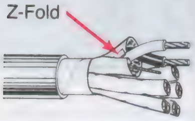
Paired

Individually Shielded

Computer and Instrumentation Cables

22 Gage
Stranded Conductors (7x30)

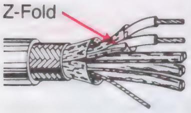
Teflon® Insulated

Description	Trade Number & U.L. Type	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nominal Capacitance			
		Colors	ft.	m		Center Conductor	Shield	Inch	mm	* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m
Z-Fold  Beldfoil® 100% Shield Coverage	**88723** 200C Subject 13 Non-conduit	2 Red/Blk. Grn./ Wht.	100 500§ 1000§	30.5 152.4 304.8	4.6 16.9 32.5	22 (7x30) 16.0Ω/M′ 52.5Ω/km	Beldfoil 10.0Ω/M′ 32.8Ω/km 100% shield coverage	.174	4.42	31	102	59	194
								Product Description: Tinned copper, Teflon insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield. 24 AWG common stranded tinned copper drain wire, overall tape wrap, red tint Teflon jacket. Pairs cabled in common axis to reduce diameter. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.					
Z-Fold  Beldfoil 100% Shield Coverage	**88777** 200C Subject 13 Non-conduit	3 Blk./Red Blk./ Wht. Blk./ Grn.	100 500§ 1000§	30.5 152.4 304.8	6.4 28.7 51.3	22 (7x30) 16.0Ω/M′ 52.5Ω/km	Beldfoil 11.3Ω/M′ 37.1Ω/km 100% shield coverage	.241	6.12	31	102	59	194
								Product Description: Tinned copper, Teflon insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 22 AWG stranded tinned copper drain wire, overall tape wrap, red transparent Teflon jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.					
Z-Fold  Beldfoil 100% Shield Coverage	**New** **88778** 200C Subject 13 Non-conduit	6 Blk./Red Blk./ Wht. Blk./ Grn. Blk./ Blue Blk./Yel. Blk./Brn.	100 500§ 1000§	30.5 152.4 304.8	8.3 44.9 83.4	22 (7x30) 16.0Ω/M′ 52.5Ω/km	Beldfoil 11.3Ω/M′ 37.1Ω/km 100% shield coverage	.306	7.77	31	102	59	194
								Product Description: Tinned copper, Teflon insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 22 AWG stranded tinned copper drain wire, red transparent Teflon jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.					

Individually Shielded Pairs with Overall Duofoil®/Braid Shield

20 Gage
Stranded Conductors (7x28)

FEP Teflon Insulated

Description	Trade Number & U.L. Type	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nominal Capacitance			
		Colors	ft.	m		Center Conductor	Shield	Inch	mm	* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m
Z-Fold  **Ethernet**™▲ Transceiver Cable	**New** **89892** 200C Subject 13 Non-conduit	4 Red/Blk. Grn./ Blue Yel./ Org. Wht./ Gry.	100 500§ 1000§	30.5 152.4 304.8	12.6 65.1 131.2	20 (7x28) 10.4Ω/M′ 34.1Ω/km	Individual Beldfoil Overall Duofoil®	.429	10.9	18.9	62	33.3	109.2
								Product Description: Tinned copper, FEP Teflon insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield. 22 AWG common stranded tinned copper drain wire, overall Duofoil shield, overall tinned copper braid shield (95% braid coverage), brown FEP jacket. 150V. NEC 725 Class 2 Classifed for use in an air plenum non-conduit.					

*Capacitance between conductors.

**Capacitance between 1 conductor and other conductor connected to shield.

®DuPont trademark

§Spools are one piece, but length may vary ± 10% from length shown.

▲Xerox trademark

Plenum

NEC Article 725-(b), Class 2 Circuits, U.L. Classified

Coaxial

Computer, Instrumentation and Broadcast Cables

Description	Trade Number & U.L. Type	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm			pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
50 ohm																
RG-58/U Type	**88240** 200C Subject 13 Non-conduit	100 500§ 1000§	30.5 152.4 304.8	5.1 19.7 38.5	20 (Solid) .032 bare copper 10.1Ω/M′ 33.1Ω/km	Teflon◑ .112	2.85	.178	4.52	Tinned copper 4.1Ω/M′ 13.5Ω/km 95% shield coverage	70% Black tint Teflon jacket.	27	88.6	100 200 400 900	4.1 6.2 9.5 14.5	13.5 20.3 31.2 47.6
Ethernet™▲	**89880** 200C Subject 13 Non-conduit	100 500§ 1000§ 1640§	30.5 152.4 304.8 500.0	20.8 78.1 157.1 247.5	Solid .0855 Tinned copper 1.42Ω/M′ 4.66Ω/km	Foamed Teflon .247	6.27	.375	9.53	Aluminum/ polyester shield + 95% tinned copper braid + Duofoil® + 95% tinned copper braid 1.52Ω/M′ 5.0Ω/km	80% Orange tint Teflon jacket.	26	85.3	5 10	.37 .52	1.2 1.7
75 ohm																
RG-59/U Type	**88241** 200C Subject 13 Non-conduit	100 500§ 1000§	30.5 152.4 304.8	6.1 24.7 48.0	22 Solid .025 bare copper covered steel 55.0Ω/M′ 180.5Ω/km	Teflon .135	3.43	.206	5.23	Bare copper 2.7Ω/M′ 8.9Ω/km 95% shield coverage	69.5% Black tint Teflon jacket.	21.0	68.9	100 200 400	3.4 4.9 7.1	11.2 16.1 23.3
RG-59/U Type	**89108** 200C Subject 13 Non-conduit	100 500§ 1000§	30.5 152.4 304.8	5.9 23.7 46.1	20 (Solid) .032 bare copper covered steel 61.5Ω/M′ 201.8Ω/km	Foamed Teflon .140	3.56	.218	5.53	Duofoil + 95% tinned copper braid 100% shield coverage	84% Black tint Teflon jacket.	16.5	54.2	50 100 200 500 900	1.8 2.7 4.0 6.1 8.3	5.9 8.8 13.1 20.0 27.2
RG-59/U Type	**89259** 200C Subject 13 Non-conduit	100 500§ 1000§	30.5 152.4 304.8	6.0 25.0 46.3	22 (7x30) .030 bare copper 15.0Ω/M′ 135.2Ω/km	Foamed Teflon .146	3.70	.218	5.54	Bare copper 2.6Ω/M′ 8.5Ω/km 95% shield coverage	84% Black tint Teflon jacket.	16.0	52.5	50 100 200 400 900	2.1 3.0 4.5 6.6 10.1	6.9 9.8 14.8 21.7 33.1

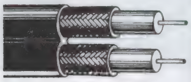
◑DuPont trademark
▲Xerox trademark
§Spools are one piece, but length may vary ± 10% from length shown.

Plenum
NEC Article 725-(b), Class 2 Circuits, U.L. Classified

BELDEN
COOPER INDUSTRIES

Coaxial

Computer, Instrumentation and Broadcast Cables

Description	Trade Number & U.L. Type	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm			pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
75 ohm																
RG-6/U Type	**89120** 200C Subject 13 Non-conduit	500§ 1000§	152.4 304.8	28.4 55.9	18 (Solid) .040 bare copper covered steel 46Ω/M' 150Ω/km	Foamed Teflon◑ .180	4.57	.256	6.50	Duofoil® + 95% tinned copper braid 5.2Ω/M' 17.1Ω/km 100% shield coverage	78.0% Black tint Teflon jacket.	17.0	55.0	50 100 200 500 900	1.5 2.1 3.1 5.0 6.9	4.9 6.9 10.2 16.4 22.6
RG-11/U Type	**89292** 200C Subject 13 Non-conduit	500§ 1000§ 2000§	152.4 304.8 609.6	49.0 91.9 184.8	14 (Solid) .064 bare copper 2.54Ω/M' 8.33Ω/km	Foamed Teflon .285	7.24	.363	9.22	Duofoil + 61% tinned copper braid 2.86Ω/M' 9.38Ω/km 100% shield coverage	80.0% Black tint Teflon jacket.	16.0	52.5	50 100 200 500 900	1.0 1.5 2.2 3.7 5.2	3.3 4.9 7.2 12.1 17.1
	88281 200C Subject 13 Non-conduit	100 500§ 1000§	30.5 152.4 304.8	11.5 54.1 102.2	20 (Solid) .032 bare copper 9.9Ω/M' 32.5Ω/km	Teflon .198	5.03	.298	7.56	Tinned copper double braid 1.06Ω/M' 3.5Ω/km 98% shield coverage	11.0% Black tint Teflon jacket.	19.0	60.0	.01 .10 1.0 4.5 10 100	.06 .08 .25 .45 .78 2.70	.2 .3 .8 1.5 2.6 8.9
 **Dual RG-59/U Type**	**89555** 200C Subject 13 Non-conduit	500§ 1000§ 2000§	152.4 304.8 609.6	55.1 111.5 248.5	23 (Solid) .023 bare copper covered steel 52.0Ω/M' 170.6Ω./km	Teflon 1.34	3.40	.236 x .442	5.99 x 11.23	Bare copper 2.37Ω/M' 7.76Ω/km 95% shield coverage	69.5% Clear Teflon jacket.	19.5	64.0	100 200 400 700 900 1000	3.5 5.1 7.5 11.4 12.0 12.7	11.5 16.7 24.6 37.4 39.4 41.7
93 ohm																
RG-62A/U Type	**89269** 200C Subject 13 Non-conduit	100 500§ 1000§	30.5 152.4 304.8	6.0 23.8 46.3	22 (Solid) .025 bare copper covered steel 41.2Ω/M' 135.2Ω/km	Semi-solid Teflon .145	3.68	.218	5.54	Bare copper 3.4Ω/M' 11.2Ω/km 95% shield coverage	85.0% Black or White tint Teflon jacket.	12.8	42.0	100 200 400 900	3.0 4.4 6.3 10.5	9.9 14.4 20.7 34.4
RG-62/U Type	**86262** Replaces 89262 200C Subject 13 Non-conduit	100 500§ 1000§	30.5 152.4 304.8	5.9 23.7 50.0	22 (Solid) .025 bare copper covered steel 41.2Ω/M' 135.2Ω/km	Foamed Teflon .146	3.71	.225	5.71	Bare copper 3.4Ω/M' 11.2Ω/km 95% shield coverage	85.0% White tint Teflon jacket.	12.5	41.0	100 200 400 900	3.0 4.4 6.3 10.5	9.9 14.4 20.7 34.4

◑DuPont trademark

§Spools are one piece, but length may vary ± 10% from length shown.

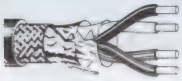
Plenum

NEC Article 725-(b), Class 2 Circuits, U.L. Classified

CLASSIFIED UL

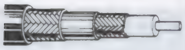
Twinaxial

Computer and Instrumentation Cables

Description	Trade Number & U.L. Type	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Jacket	Nominal O.D.		Nominal Vel. of Prop.	Nominal Capacitance			
		ft.	m		Cond.	Shield		Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m
78 ohm														
	89272 200C Subject 13 Non-conduit	100 500§ 1000§	30.5 152.4 304.8	5.3 21.2 46.2	2 Cond. 20 (7x28) .037 tinned copper 9.5Ω/M' 31.2Ω/km	Tinned copper braid 3.8Ω/M' 12.5Ω/km 93% shield coverage	Blue tint Teflon◑	.220	5.59	70.0%	16.9	55.4	—	—
							Color code: Clear, Blue.							
100 ohm														
	89207 200C Subject 13 Non-conduit	100 500§ 1000§	30.5 152.4 304.8	9.4 44.0 82.1	2 Cond. 20 (7x28) .037 1 cond. tinned 1 cond. bare 9.5Ω/M' 31.2Ω/km	Tinned copper braid 1.7Ω/M' 5.6Ω/km 95% braid coverage	Black tint Teflon	.282	7.16	72.0%	13.3	42.7	—	—
	**89855** 200C Subject 13 Non-conduit	500§ 1000§	152.4 304.8	29.5 52.9	4 Cond. 22 (Solid) .025 tinned copper (2 pair) 16.5Ω/M' 54.1Ω/km	Beldfoil® with solid tinned copper drain wire & 58% tinned copper braid 4.2Ω/M 13.8Ω/km 100% shield coverage	Black tint Teflon	.274	6.96	69.5%	15.5	50.9	—	—
							Color code: One pair, Red, Blue and one pair, Black, Yellow.							
	89696 200C Subject 13 Non-conduit	500§ 1000§	152.4 304.8	29.5 53.0	4 Cond. 22 (Solid) .025 tinned copper (2 pair) 16.5Ω/M' 54.1Ω/km	Beldfoil with solid tinned copper drain wire & 58% tinned copper braid 4.2Ω/M' 13.8Ω/km 100% shield coverage	Black tint Teflon	.274	6.96	69.5%	15.5	50.9	—	—
							Color code: One pair, Blue, White with Blue Stripe and one pair, Orange, White with Orange Stripe.							

Triaxial

Computer and Instrumentation Cables

Description	Trade Number & U.L. Type	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm			pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
75 ohm																
 **G-59/U Type axial**	**88232** 200C Subject 13 Non-conduit	100 500§ 1000§	30.5 152.4 609.6	9.3 41.4 79.4	20 (Solid) .032 bare copper covered steel 34.5Ω/M' 113.2Ω/km	Foamed Teflon◑ .140 .192	3.55 4.87	.264	6.70	2 bare copper 2.6Ω/M' 8.5Ω/km per shield 96% shield coverage	84%	16.5	54.1	50 100 200 500 900	1.8 2.5 3.6 6.0 8.6	5.9 8.2 11.8 19.7 28.2
											Black tint Teflon jacket.					

*Capacitance between conductors.

**Capacitance between 1 conductor and other conductors connected to shield.

◑DuPont trademark

§Spools are one piece, but length may vary ± 10% from length shown.

Plenum

NEC Article 725-(b), Class 2 Circuits, U.L. Classified

Paired Cables Unshielded

Fluorocopolymer Jacketed Sound and Control Cables

The fluorocopolymer (PVDF) jacket used in Belden plenum cables has been accepted under the provisions of the National Electrical Code and is classified by Underwriters Laboratories for use without conduit in air plenums.

The fluorocopolymer jacket exhibits good mechanical properties for air plenum applications, including:

- Good Abrasion Resistance
- Good Aging Resistance
- Good Chemical Resistance
- Good Crush Resistance
- Good Water Resistance
- High Elongation
- Low Coefficient of Friction (Slides rather than tears)
- U.L. Rating of 150C

Fluorocopolymer jacketed products are cost effective. Overall installed cost is dramatically lower because the added cost of conduit is eliminated along with the additional time required to install it. Fluorocopolymer jackets also offer additional cost savings when compared against other fluoropolymers. U.L. Classified for non-conduit plenum use.

Description	Trade Number & U.L. Type	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		Colors	ft.	m		Inch	mm	Inch	mm	Inch	mm
22 Gage Stranded Conductors (7x30)											
	New **87442** 150C Subject 13 Non-conduit	1 Black Red	100 500§ 1000§	30.5 152.4 304.8	3.4 11.8 18.5	.010	.25	.022	.56	.147	3.73

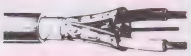
Product Description: Tinned copper, Teflon◑ insulated, twisted pair, overall tape wrap, red fluorocopolymer jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.

Description	Trade Number & U.L. Type	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		Colors	ft.	m		Inch	mm	Inch	mm	Inch	mm
18 Gage Stranded Conductors (19x30)											
	New **87740** 150C Subject 13 Non-conduit	1 Black Red	100 500§ 1000§	30.5 152.4 304.8	4.4 16.9 30.3	.010	.25	.022	.56	.180	4.57

Product Description: Tinned copper, Teflon insulated, twisted pair, overall tape wrap, red fluorocopolymer jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.

Paired Cables Overall Beldfoil® Shield

Sound, Broadcast and Instrumentation

Description	Trade Number & U.L. Type	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
		Colors	ft.	m		Inch	mm	Inch	mm	Inch	pF/ mm	* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m
22 Gage Stranded Conductors (7x30)															
 Beldfoil® 100% Shield Coverage	**New** **87761** 150C Subject 13 Non-conduit	1 Black Red	100 500§ 1000§	30.5 152.4 304.8	3.7 13.3 21.6	.010	.25	.022	.56	.152	3.86	25	82	47	154

Product Description: Tinned copper, Teflon insulated, twisted pair, Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, red fluorocopolymer jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.

Description	Trade Number & U.L. Type	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
		Colors	ft.	m		Inch	mm	Inch	mm	Inch	pF/ mm	* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m
18 Gage Stranded Conductors (19x30)															
 Beldfoil 100% Shield Coverage	**New** **87760** 150C Subject 13 Non-conduit	1 Black Red	100 500§ 1000§	30.5 152.4 304.8	7.8 18.8 34.1	.010	.25	.022	.56	.183	4.65	33	108	59	194

Product Description: Tinned copper, Teflon insulated, twisted pair, 20 AWG stranded tinned copper drain wire, Beldfoil aluminum-polyester shield, overall tape wrap, red fluorocopolymer jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.

◑DuPont trademark
§Spools are one piece, but length may vary ± 10% from length shown.
*Capacitance between conductors.
**Capacitance between 1 conductor and remaining conductors connected to shield.

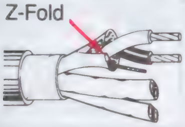
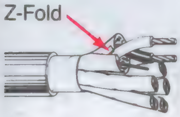
Plenum

NEC Article 725-(b), Class 2 Circuits, U.L. Classified

Paired Cables Individually Shielded

Fluorocopolymer Jacketed Computer and Instrumentation Cables

22 Gage
Stranded Conductors (7x30)

Description	Trade Number & U.L. Type	No. of Pairs / Colors	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Nominal D.C.R. Center Conductor	Nominal D.C.R. Shield	Nominal O.D. Inch	Nominal O.D. mm	Nominal Capacitance * pF/ft.	Nominal Capacitance * pF/m	Nominal Capacitance ** pF/ft.	Nominal Capacitance ** pF/m
Z-Fold Beldfoil® 100% Shield Coverage	**New** **87723** 150C Subject 13 Non-conduit	2 Red/Blk. Grn./Wht.	100 500§ 1000§	30.5 152.4 304.8	4.4 16.9 30.5	22 (7x30) 16.0Ω/M′ 52.5Ω/km	10.0Ω/M′ 32.8Ω/km	.174	4.42	31	102	59	194
								Product Description: Tinned copper, Teflon® insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 24 AWG stranded tinned copper drain wire, overall tape wrap, red fluorocopolymer jacket. Pairs cabled on common axis to reduce diameter. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.					
Z-Fold  Beldfoil 100% Shield Coverage	**New** **87777** 150C Subject 13 Non-conduit	3 Blk./Red Blk./Wht. Blk./Grn.	100 500§ 1000§	30.5 152.4 304.8	5.9 26.2 46.2	22 (7x30) 16.0Ω/M′ 52.5Ω/km	11.3Ω/M′ 37.1Ω/km	.241	6.12	31	102	59	194
								Product Description: Tinned copper, Teflon insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 22 AWG stranded tinned copper drain wire, overall tape wrap, red fluorocopolymer jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.					
Z-Fold  Beldfoil 100% Shield Coverage	**New** **87778** 150C Subject 13 Non-conduit	6 Blk./Red Blk./Wht. Blk./Grn. Blk./Blue Blk./Yel. Blk./Brn.	100 500§ 1000§	30.5 152.4 304.8	10.0 46.3 86.6	22 (7x30) 16.0Ω/M′ 52.5Ω/km	11.3Ω/M′ 37.1Ω/km	.306	7.77	31	102	59	194
								Product Description: Tinned copper, Teflon insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield and 22 AWG stranded tinned copper drain wire, overall tape wrap, red fluorocopolymer jacket. 150V. NEC 725 Class 2 Classified for use in an air plenum non-conduit.					

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
®DuPont trademark
§Spools are one piece, but length may vary ± 10% from length shown.

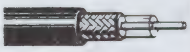
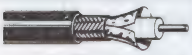
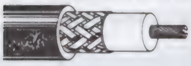
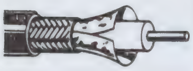
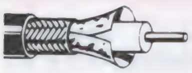
Plenum
NEC Article 725-(b), Class 2 Circuits, U.L. Classified

Coaxial Cables

Fluorocopolymer Jacketed

Computer and Instrumentation Cables

75 ohm

Description	Trade Number & U.L. Type	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D. Inch	Insulation & Nominal Core O.D. mm	Nominal O.D. Inch	Nominal O.D. mm	No. of Shields & Material Nom. D.C.R.	Nom Vel. of Prop.	Nominal Capacitance pF/ft.	Nominal Capacitance pF/m	Nominal Attenuation MHz	db/100 ft.	db/100 m
 **RG-59/U Type**	**New 87241** 150C Subject 13 Non-conduit	100 500§ 1000§	30.5 152.4 304.8	5.9 24.6 45.7	22 (Solid) .025 bare copper covered steel 55.0Ω/M' 180.5Ω/km	Teflon◑ .135	3.43	.205	5.21	Bare copper 2.7Ω/M' 8.9Ω/km 95% shield coverage	69.5% Black fluorocopolymer jacket.	21.0	68.9	100 200 400	3.4 4.9 7.1	11.2 16.1 23.3
 **RG-59/U Type**	**New 87108** 150C Subject 13 Non-conduit	100 500§ 1000§	30.5 152.4 304.8	5.6 23.2 42.9	20 (Solid) .032 bare copper covered steel 61.5Ω/M' 201.8Ω/km	Foamed Teflon .140	3.56	.216	5.49	Duofoil® +95% tinned copper braid 100% shield coverage	84.0% Black fluorocopolymer jacket.	16.5	54.2	50 100 200 500 900	1.8 2.7 4.0 6.1 8.3	5.9 8.8 13.1 20.0 27.2
 **RG-59/U Type**	**New 87259** 150C Subject 13 Non-conduit	100 500§ 1000§	30.5 152.4 304.8	5.8 23.7 43.9	22 (7x30) .030 bare copper 15.0Ω/M' 135.2Ω/km	Foamed Teflon .146	3.71	.218	5.54	Bare copper 2.6Ω/M' 8.5Ω/km 95% shield coverage	84.0% Black fluorocopolymer jacket.	16.0	52.5	50 100 200 400 900	2.1 3.0 4.5 6.6 10.1	6.9 9.8 14.8 21.7 33.1
 **RG-6/U Type**	**New 87120** 150C Subject 13 Non-conduit	500§ 1000§	152.4 304.8	28.1 53.3	18 (Solid) .040 bare copper covered steel 7.5Ω/M' 24.6Ω/km	Foamed Teflon .180	4.57	.256	6.50	Duofoil +95% tinned copper braid 5.2Ω/M' 17.1Ω/km 100% shield coverage	78.0% Black fluorocopolymer jacket.	17.0	55.0	50 100 200 500 900	1.5 2.1 3.1 5.0 6.9	4.9 6.9 10.2 16.4 22.6
 **RG-11/U Type**	**New 87292** 150C Subject 13 Non-conduit	500§ 1000§ 2000§	152.4 304.8 609.6	43.2 80.5 161.9	14 (Solid) .064 bare copper 2.5Ω/M' 8.3Ω/km	Foamed Teflon .285	7.24	.363	9.22	Duofoil +61% tinned copper braid 2.86Ω/M' 9.38Ω/km 100% shield coverage	80.0% Black fluorocopolymer jacket.	16.0	52.5	50 100 200 500 900	1.0 1.5 2.2 3.7 5.2	3.3 4.9 7.2 12.1 17.1

◑DuPont trademark
§Spools are one piece, but length may vary ± 10% from length shown.

Plenum

NEC Article 760-4(d). Also U.L. Classified for NEC 725-2(b), Class 2 or 3 Circuits

Power Limited, Fire Protective

Multi-Conductor Cables

Overall Foil/Braid Shield

Control and Instrumentation Cables

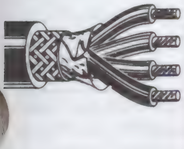
14 Gage
Stranded Conductors (7x22)

Product Description
Tinned copper, Teflon® insulated, conductors cabled, Beldfoil aluminum-polyester shield with 85% tinned copper braid shield, Teflon jacket, red tint. 150V. NEC 725 and 760, Class 2 Classified for use in an air plenum non-conduit. Color code chart No. 2, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil® 100% Shield Coverage 200C UL Subject 1424 and UL Subject 13 Class 2 & 3	**83752**	2	100 500§ 1000§	30.5 152.4 304.8	10.3 48.2 90.5	.016	.40	.042	1.07	.321	8.15	29	95	52	170
	83753	3	100 500§ 1000§	30.5 152.4 304.8	14.3 58.1 110.2	.016	.40	.042	1.07	.338	8.58	27	88	49	160
	83754	4	100 500§ 1000§	30.5 152.4 304.8	16.4 69.3 139.3	.016	.40	.042	1.07	.365	9.27	25	82	46	151
	83756	6	100 500§ 1000§	30.5 152.4 304.8	21.2 94.7 197.5	.016	.40	.052	1.32	.446	11.33	24	78	44	144

12 Gage
Stranded Conductors (7x20)

Product Description
Tinned copper, Teflon insulated, conductors cabled, Beldfoil aluminum-polyester shield with 85% tinned copper braid shield, Teflon jacket, red tint. 150V. NEC 725 and 760, Class 2 Classified for use in an air plenum non-conduit. Color code chart No. 2, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil 100% Shield Coverage 200C UL Subject 1424 and UL Subject 13 Class 2 & 3	**83802**	2	100 500§ 1000§	30.5 152.4 304.8	14.3 58.1 110.2	.016	.40	.042	1.07	.357	9.07	32	105	55	180
	83803	3	100 500§ 1000§	30.5 152.4 304.8	17.5 74.6 150.0	.016	.40	.042	1.07	.377	9.57	30	98	53	173
	83804	4	100 500§ 1000§	30.5 152.4 304.8	20.5 95.9 192.6	.016	.40	.052	1.32	.429	10.89	29	95	52	170
	83806	6	100 500§ 1000§	30.5 152.4 304.8	28.1 127.8 256.4	.016	.40	.052	1.32	.500	12.70	27	88	48	157

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
®DuPont trademark
§Spools are one piece, but length may vary ± 10% from length shown.

High-Temperature Cables

All products in this section are manufactured by Belden in Essex Junction, Vermont. This plant is dedicated to the exclusive production of high-temperature cables for use in a wide range of applications and operating environments. One thing all these cables have in common is their ability to maintain high performance levels, under extreme heat, over extended periods of time. Belden high-temperature cables with Teflon® insulations can operate at heat levels as high as 200C—temperatures that would cause conventional insulation compounds to degrade very quickly.

High-temperature insulation compounding and production capabilities along with expertise in shielding constructions have enabled Belden to design and produce an outstanding line of precision-engineered cables for high tech applications such as data communications and broadcasting.

Using FEP Teflon®, TFE Teflon®, Kapton®, Tefzel® and other high-temperature insulation compounds, Belden manufactures high-temperature cables for data communications applications; control and instrumentation cables; thermocouple wire; and special single-conductor wire products for use in various other high-temperature applications.

Products listed in this section are fully tested to meet published electronic performance specifications and all are immediately available from inventory.

Custom Design Center

If you have a new or unusual application or you cannot find cable in this section which meets your technical requirements, contact Belden's Product Engineering Group. Phone 317/983-5200.

The cables in this section are organized as follows:

	Page(s)
1. Hook-up wire	141 – 143
2. Multi-conductor	144 – 147
3. Paired	147 & 148
4. Coaxial	149 & 150
5. Twinaxial	150
6. TAGT appliance lead wire	151
7. Thermocouple and extension wire	152 & 153

®DuPont trademark

Military/Aircraft Wire
Export License Required

Custom Manufactured (Consult Belden for minimum order requirements)

MIL-W-22759

All 22759 Belden cables are manufactured to meet the qualification set forth in the military specification. This specification covers fluoropolymer-insulated single conductor electric wires made with tin-plated, silver-plated or nickel-plated conductors of copper or copper alloy as specified in the following slant sheets. The fluoropolymer resins used may be TFE and ETFE (Tefzel®).

Put-up 1000 ft. ± 10%, maximum of 5 pieces per spool, minimum 50 ft. per piece.

Applications include: Airframe, Avionics, Instrumentation, and Ground Support Equipment.

Colors available are: Brown, Red, Orange, Yellow, Green, Blue, Violet (Purple), Gray, White, and Black. Also available in striping.

How to order: Cable should be identified by a combination of digits.

1. The first element represents the cable spec number (Mil-W-22759).
2. The next element indicates the slant sheet information (09).
3. The last element represents the basic wire size (28).

YQ-2 — 09 — 28

YQ-2	09	28
Belden Prefix for Mil-W-22759	Slant Sheet	Indicates your Gage Size

Belden is qualified for the following:

Specification Sheets	Description
22759/9	Silver-plated Copper, Extruded TFE, 1000 V., 200C, 28 AWG through 12 AWG (1).
22759/10	Nickel-plated Copper, Extruded TFE, 1000 V., 260C, 28 AWG through 12 AWG (1).
22759/11	Silver-plated Copper, Extruded TFE, 600 V., 200C, 28 AWG through 12 AWG (1) (2).
22759/12	Nickel-plated Copper, Extruded TFE, 600 V., 260C, 28 AWG through 12 AWG (1) (2).
22759/16	Tin-plated Copper, Extruded ETFE (Tefzel), 600 V., 150C, 24 AWG through 2/0 Medium Weight Wire.
22759/17	Silver-plated Copper Alloy, Extruded ETFE (Tefzel), 600 V., 150C, 26 AWG through 20 AWG Medium Weight Wire.

Specification Sheets	Description
22759/18	Tin-plated Copper, Extruded ETFE (Tefzel), 600V., 150C, 26 AWG through 10 AWG Light Weight Wire.
22759/19	Silver-plated Copper Alloy, Extruded ETFE (Tefzel), 600 V., 150C, 26 AWG through 20 AWG Light Weight Wire.
22759/20	Silver-plated Copper Alloy, Extruded TFE, 1000 V., 200C, 28 AWG through 20 AWG (Similar to 22759/9 except alloy conductor.)
22759/21	Nickel-plated Copper Alloy, Extruded TFE, 1000 V., 260C, 28 AWG through 20 AWG (Similar to 22759/10 except alloy conductor.)
22759/22	Silver-plated Copper Alloy, Extruded TFE, 600 V., 200C, 28 AWG through 20 AWG (Similar to 22759/11 except alloy conductor.)
22759/23	Nickel-plated Copper Alloy, Extruded TFE, 600 V., 260C, 28 AWG through 20 AWG (Similar to 22759/12 except alloy conductor.)

(1) Spec allows up to 8 AWG, current capability to 12 AWG only. (2) Similar to type E per Mil-W-16878.

MIL-C-27500

Cables produced to M27500 require the component wires only to be QPL. Cables manufactured to this spec may have from one to seven conductors, and may be unshielded or shielded with either one or two shields. Cables may be unjacketed, single or double jacketed. Belden can produce insulated conductors which conform to wires manufactured under Mil-W-22759.

Applications include airframe wiring in place of harnesses for instrumentation, avionics, telemetering systems, and ground support equipment.

For color-coding information consult factory.

How to order: The M27500 specification allows the complete description of a cable by using a combination of letters and digits.

1. The first element represents the cable spec number, i.e. (M27500).
2. The second element represents the basic wire size, i.e. (22 AWG).
3. The third element represents the basic wire spec, i.e. (LE), Mil-W-22759/9-Table I.
4. The fourth element represents the number of conductors in the cable, i.e. (3).
5. The fifth element represents the shield style and material, i.e. (T), Round tinned copper wire, Table II.
6. The sixth element is the type of jacket materials and the number of jackets, i.e. (15), Table III.

M27500 — 22 — LE — 3 — T — 15

M27500	22	LE	3	T	15
Cable Specification Number	Gage Size	Basic Wire Specification (Symbol) (Table I)	Number of Wires in Cable	Shield Style and Material (Symbol) (Table II)	Jacket Material (Symbol) (Table III)

Belden's capabilities are:
Table 1 Component Wires (Basic Wire Specification)

Specification Number	Conductor Material	Insulation	Gage Size Available	MIL-C-27500 Symbol
MIL-W-22759/9	SPC	TFE (Teflon®)	12 to 28 AWGs	LE
MIL-W-22759/10	NPC	TFE (Teflon)	12 to 28 AWGs	LH
MIL-W-22759/11	SPC	TFE (Teflon)	12 to 28 AWGs	RC
MIL-W-22759/12	NPC	TFE (Teflon)	12 to 28 AWGs	RE
MIL-W-22759/16	TPC	ETFE (Tefzel®)	2 to 24 AWGs	TE
MIL-W-22759/17	SPA	ETFE (Tefzel)	20 to 26 AWGs	TF
MIL-W-22759/18	TPC	ETFE (Tefzel)	10 to 26 AWGs	TG
MIL-W-22759/19	SPA	ETFE (Tefzel)	20 to 26 AWGs	TH
MIL-W-22759/20	SPA	TFE (Teflon)	20 to 28 AWGs	TK
MIL-W-22759/21	NPA	TFE (Teflon)	20 to 28 AWGs	TL
MIL-W-22759/22	SPA	TFE (Teflon)	20 to 28 AWGs	TM
MIL-W-22759/23	NPA	TFE (Teflon)	20 to 28 AWGs	TN

®DuPont trademark

SPC silver-plated annealed copper. SPA silver-plated high-strength, high-conductivity alloy. NPC nickel-plated annealed copper. NPA nickel-plated high-strength conductivity alloy.

Military/Aircraft
Export License Required

Custom Manufactured (Consult Belden for minimum order requirements)

MIL-C-27500 (cont'd.)

Table II Shield Style and Material

Shield Constructions

The following shield materials can be supplied as single or double braid constructions:

Shield Material	MIL-C-27500 Single Shield Symbol	MIL-C-27500 Double Shield Symbol
No shield	U	—
Tin-coated copper, round	T	V
Silver-coated copper, round	S	W
Nickel-coated copper, round	N	Y
Stainless steel, round	F	Z
Nickel-clad copper, round	C	R
Silver-coated high-strength copper alloy, round	M	K
Nickel-coated high-strength copper alloy, round	P	L

Table III Jacket Styles

Jacket Material	MIL-C-27500 Single Jacket Symbol	MIL-C-27500 Double Jacket Symbol	Temperature Limits for Jacket Materials
No Jacket	00	00	—
Extruded white polyvinyl chloride (PVC)	01	51	90C (194F)
White nylon braid impregnated with clear nylon finisher over a polyester tape	03	53	105C (221F)
Extruded clear fluorinated ethylene propylene (Teflon◑ FEP)	05	55	200C (392F)
Extruded or taped and fused white polytetrafluoroethylene (Teflon TFE)	06	56	260C (500F)
White polytetrafluoroethylene coated glass braid impregnated with polytetrafluoroethylene finisher over a polytetrafluoroethylene tape	07	57	260C (500F)
Extruded white fluorinated ethylene propylene (Teflon FEP)	09	59	200C (392F)
Tape of natural polyimide (Kapton◑) combined with clear fluorinated ethylene propylene (Teflon FEP) wrapped and heat sealed with FEP outer surface	11	61	200C (392F)
Tape of natural polyimide combined with fluorinated ethylene propylene (Teflon FEP) wrapped and heat sealed with polyimide outer surface (Kapton)	12	62	200C (392F)
Extruded white ethylene tetrafluoroethylene copolymer (Tefzel◑ ETFE)	14	64	150C (302F)
Extruded clear ethylene tetrafluoroethylene copolymer (Tefzel ETFE)	15	65	150C (302F)
Extruded white perfluoroalkoxy (Teflon PFA)	20	70	260C (500F)
Extruded clear perfluoroalkoxy (Teflon PFA)	21	71	260C (500F)

MIL-C-17/176-00002

Application

Designed for use in 1 MHz multiplex computerized data distribution systems for communication, command and intelligence in military and commercial aircraft.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Vel. of Prop.	Nominal Capacitance		Inductance*	
		ft.	m			Inch	mm	Inch	mm			pF/ft.	pF/m	nH/ft.	nH/m
77 ohm															
	New 81553	100 500¶ 1000¶	30.5 152.4 304.8	1.9 9.8 19.5	24 (19x36), (.0235), silver plated high strength copper alloy	TFE Insulated .042	1.07	.129	3.28	Silver plated high strength copper alloy 93% shield coverage	63%	24 max.	78.74 max.	118 min.	387.1 min.
											PFA Teflon jacket. Color code: One Blue, One White. Jacket color: translucent blue.				

◑DuPont trademark

*Inductance (L) is measured at 1 MHz for a 10 ft. 2 inch test cable. This shield shall be floated. The end of the cable shall be shorted. The impedance (Z) shall then be calculated using the following formula: $Z = \sqrt{\frac{L}{C}}$ where inductance = L and capacitance = C.

¶Spools may contain more than one piece. Length may vary ± 10% from length shown.

Please call Belden for other MIL Spec requirements.

Teflon® Hook-Up Wire

Teflon is a fluorinated thermoplastic with outstanding thermal, physical and electrical properties. However, the basic resin and the processing costs are relatively high; therefore, Teflon is generally restricted to applications requiring its special characteristics.

Belden Teflon wire products are highly recommended for miniature cable applications because of their superior thermal and electrical properties. Teflon is especially suitable for internal wiring-soldering applications where insulation melt back is a specific problem. Belden wiring products insulated with Teflon are outstanding in their resistance to oil, oxidation, heat, sunlight, flame, and their ability to remain flexible at low temperatures. They all have excellent resistance to ozone, water, alcohol, gasoline, acids, alkalis, aromatic hydrocarbons, and solvents. We welcome inquiries for the following type designations for MIL-W-16878/: 1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 34, and 35.

U.L. Style 1180 300V – 200C
(Type EE)—MIL-W-16878E/5 Teflon – 1000V-200C

Product Description
Stranded silver-coated copper conductor insulated with extruded TFE Teflon.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	
	83023†	100¶ 500¶ 1000¶	30.5 152.4 304.8	.4 1.8 3.4	24 (19x36)	.015	.38	.054	1.37	1-10 See color code chart on page 143.
1180	**83025†**	100¶ 500¶ 1000¶	30.5 152.4 304.8	.5 2.3 4.4	22 (7x30)	.015	.38	.060	1.52	1-10 See color code chart on page 143.
	83026†	100¶ 500¶ 1000¶	30.5 152.4 304.8	.4 2.2 4.5	22 (19x34)	.015	.38	.060	1.52	1-10 See color code chart on page 143.
	83027†	100¶ 500¶ 1000¶	30.5 152.4 304.8	.8 3.2 6.5	20 (19x32)	.015	.38	.068	1.73	1-10 See color code chart on page 143.
	83028†	100¶ 500¶ 1000¶	30.5 152.4 304.8	.8 3.2 6.3	20 (7x28)	.015	.38	.068	1.73	1-10 See color code chart on page 143.
	83029†	100¶ 500¶ 1000¶	30.5 152.4 304.8	1.1 4.6 9.2	18 (19x30)	.015	.38	.079	2.01	1-10 See color code chart on page 143.
	83030†	100¶ 500¶ 1000¶	30.5 152.4 304.8	1.4 5.8 11.7	16 (19x29)	.015	.38	.089	2.26	1-10 See color code chart on page 143.

UL Style 1213 105C
(Type E)—MIL-W-16878E/4 Teflon—600V-200C

Product Description
Stranded silver-coated copper conductor insulated with extruded TFE Teflon.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	
	83000†	100¶ 500¶ 1000¶	30.5 152.4 304.8	.12 .62 1.20	30 (7x38)	.010	.25	.032	.81	1-10 See color code chart on page 143.
1213	**83001†**	100¶ 500¶ 1000¶	30.5 152.4 304.8	.14 .77 1.50	28 (7x36)	.010	.25	.035	.89	1-10 See color code chart on page 143.

®DuPont trademark
†Passes the VW-1 Vertical Wire Flame Test.
¶Spools may contain more than one piece. Length may vary ±10% from length shown.

Teflon[◑] Hook-Up Wire

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	

U.L. Style 1213 105C (cont'd.)
(Type E)—MIL-W-16878E/4 Teflon—600V-200C

Product Description
Stranded silver-coated copper conductor insulated with extruded TFE Teflon.

	83002†	100¶ 500¶ 1000¶	30.5 152.4 304.8	.23 1.2 2.1	26 (7x34)	.010	.25	.039	.99	1-10 See color code chart on page 143.
UL 1213	**83003†**	100¶ 500¶ 1000¶	30.5 152.4 304.8	.26 1.3 2.7	24 (19x36)	.010	.25	.044	1.12	1-10 See color code chart on page 143.
	83004†	100¶ 500¶ 1000¶	30.5 152.4 304.8	.3 1.3 2.7	24 (7x32)	.010	.25	.044	1.12	1-10 See color code chart on page 143.
	83005†	100¶ 500¶ 1000¶	30.5 152.4 304.8	.5 1.9 3.6	22 (7x30)	.010	.25	.050	1.27	1-10 See color code chart on page 143.
	83006†	100¶ 500¶ 1000¶	30.5 152.4 304.8	.5 1.9 3.7	22 (19x34)	.010	.25	.050	1.27	1-10 See color code chart on page 143.
	83007†	100¶ 500¶ 1000¶	30.5 152.4 304.8	.6 2.8 5.3	20 (19x32)	.010	.25	.058	1.47	1-10 See color code chart on page 143.
	83008†	100¶ 500¶ 1000¶	30.5 152.4 304.8	.6 2.7 5.1	20 (7x28)	.010	.25	.058	1.47	1-10 See color code chart on page 143.

U.L. Style 1371 105C
(Type E)—MIL-W-16878E/4 Teflon—600V-200C

Product Description
Stranded silver-coated copper conductor insulated with extruded TFE Teflon.

	83009†	100¶ 500¶ 1000¶	30.5 152.4 304.8	1.0 4.0 8.0	18 (19x30)	.010	.25	.069	1.75	1-10 See color code chart on page 143.
UL 1371	**83010†**	100¶ 500¶ 1000¶	30.5 152.4 304.8	1.3 5.3 10.5	16 (19x29)	.012	.30	.080	2.03	1-10 See color code chart on page 143.

U.L. Style 1371 105C
(Type ET)—MIL-W-16878E/6 Teflon—250V-200C

Product Description
Stranded silver-coated copper conductor insulated with extruded TFE Teflon.

	83041†	100¶ 1000¶	30.5 304.8	.2 .8	32 (7x40)	.006	.15	.021	.53	1-10 See color code chart on page 143.
UL 1371	**83043†**	100¶ 1000¶	30.5 304.8	.2 .9	30 (7x38)	.006	.15	.024	.61	1-10 See color code chart on page 143.

[◑]DuPont trademark
†Passes the VW-1 Vertical Wire Flame Test.
¶Spools may contain more than one piece. Length may vary ±10% from length shown.

Teflon® Hook-Up Wire (cont'd.)

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	

U.L. Style 1371 105C (cont'd.)
(Type ET)—MIL-W-16878E/6 Teflon—250V-200C

Product Description
Stranded silver-coated copper conductor insulated with extruded TFE Teflon.

Description	Trade & U.L. Style Number	ft.	m	Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness Inch	Insulation Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Stock Colors
	83045†	100¶ 1000¶	30.5 304.8	.2 1.2	28 (7x36)	.006	.15	.027	.69	1-10
UL 1371	**83046†**	100¶ 1000¶	30.5 304.8	.3 1.6	26 (7x34)	.006	.15	.031	.79	1-10
	83047†	100¶ 1000¶	30.5 304.8	.3 2.2	24 (7x32)	.006	.15	.036	.91	1-10
	83048†	100¶ 1000¶	30.5 304.8	.3 2.2	24 (19x36)	.006	.15	.036	.91	1-10
	83049†	100¶ 1000¶	30.5 304.8	.4 3.1	22 (7x30)	.006	.15	.042	1.07	1-10
	83050†	100¶ 1000¶	30.5 304.8	.4 3.1	22 (19x34)	.006	.15	.042	1.07	1-10

®DuPont trademark
†Passes the VW-1 Vertical Wire Flame Test.
¶Spools may contain more than one piece. Length may vary ± 10% from length shown.

Color Codes

1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Light Blue
7	Violet (purple)
8	Gray (slate)
9	White
10	Black
11	Tan
12	Pink
13	Dark Blue
14	White/Black
15	White/Red
16	White/Green
17	White/Yellow
18	White/Blue
19	White/Brown
20	White/Orange
21	White/Gray
22	White/Violet
23	White/Black/Red
24	White/Black/Green
25	White/Black/Yellow
26	White/Black/Blue
27	White/Black/Brown
28	White/Black/Orange
29	White/Black/Gray
30	White/Black/Violet
189	Green/Yellow

Multi-Conductor Cables

Unshielded

Tefzel® insulated and jacketed cables are particularly well suited for harsh environments due to outstanding mechanical toughness of the material, as well as its high temperature and radiation resistant characteristics.

Tefzel cables are used extensively in chemical plants, nuclear plants and fossil fuel power plants. Typical applications are: Data recording, communication, telemetering, monitoring pressure or material flow.

Control and Instrumentation Cables

16 Gage
Stranded Conductors (19x29)

Product Description
Tinned copper conductors, Tefzel insulated, conductors cabled, clear Tefzel jacket. 150C 300V, RMS. Color code chart No. 2, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		Inch	mm	Inch	mm	Inch	mm
	85102†	2	100 500§ 1000§	30.5 152.4 304.8	5.1 19.4 37.4	.015	.38	.020	.50	.215	5.46
	85103†	3	100 500§ 1000§	30.5 152.4 304.8	6.1 24.6 47.8	.015	.38	.020	.50	.228	5.79
	85105†	5	100 500§ 1000§	30.5 152.4 304.8	8.3 38.2 70.5	.015	.38	.020	.50	.273	6.91
	85107†	7	100 500§ 1000§	30.5 152.4 304.8	10.8 50.4 94.7	.015	.38	.025	.63	.308	7.82
	85109†	9	100 500§ 1000§	30.5 152.4 304.8	15.1 62.5 125.9	.015	.38	.025	.63	.359	9.12

Multi-Conductor Cables

Overall Beldfoil® Shield

Control and Instrumentation Cables

22 Gage
Stranded Conductors (7x30)

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ ft.	* pF/ m	** pF/ ft.	** pF/ m
	83395	3	25 100 500¶	7.6 30.5 152.4	1.1 3.1 15.0	(7x30)	.015	.38	.030	.76	.213	5.41	Black Red White	20	66	35	115
Beldfoil 100% Shield Coverage						**Product Description:** Tinned copper, insulated with FEP Teflon, conductors cabled, noise reducing tape, 22 AWG (7x30) stranded tinned copper drain wire, special Beldfoil shield, red Silicone rubber jacket. +150C maximum −70C minimum operating temperature. 100% shield coverage. Jacket working voltage: 2000V DC, shield to ground.											
Teflon® and Silicone	**83396**	4	25 100 500¶	7.6 30.5 152.4	1.2 3.6 16.5	(7x30)	.015	.38	.030	.76	.222	5.64	Red Black Green White	20	66	35	115
						Product Description: Tinned copper, insulated with FEP Teflon, conductors cabled, noise reducing tape, 22 AWG (7x30) stranded tinned copper drain wire, special Beldfoil shield, red Silicone rubber jacket. +150C maximum −70C minimum operating temperature. 100% shield coverage. Jacket working voltage: 2000V DC, shield to ground.											

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
®DuPont trademark
†Passes the VW-1 Vertical Wire Flame Test.
§Spools are one piece, but length may vary ± 10% from length shown.
¶Spools may contain more than one piece. Length may vary ± 10% from length shown.

Multi-Conductor Cables

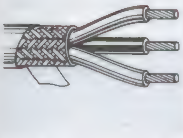
Overall Braid Shield

MIL-W-16878/4 (Type E)—Individual Conductors

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m

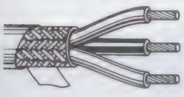
26 Gage
Stranded Conductors (7x34)

Product Description
Stranded silver-coated copper conductors, insulated with extruded TFE Teflon◑ color-coded, cabled, silver-plated copper braid shield, white TFE Teflon tape-wrapped jacket. MIL-SPEC: MIL-W-16878/4 (Type E). Temperature Rating: −65C to 200C. Voltage: 600V (RMS).

	**83303†**	1	100¶ 500¶ 1000¶	30.5 152.4 304.8	.9 3.4 6.9	(7x34)	.010	.25	.010	.25	.077	1.96	White	—	—	44	144
	83317†	2	100¶ 500¶ 1000¶	30.5 152.4 304.8	1.5 6.5 16.1	(7x34)	.010	.25	.010	.25	.120	3.05	White Black	21	69	36	118
	83332†	3	100¶ 500¶ 1000¶	30.5 152.4 304.8	1.8 8.2 19.4	(7x34)	.010	.25	.010	.25	.126	3.20	White Black Red	19	62	32	105
90% Shield Coverage	**83347†**	4	100¶ 500¶ 1000¶	30.5 152.4 304.8	2.0 9.4 21.7	(7x34)	.010	.25	.010	.25	.136	3.45	White Black Red Green	19	62	31	102

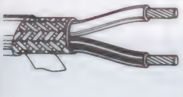
24 Gage
Stranded Conductors (19x36)

Product Description
Stranded silver-coated copper conductors, insulated with extruded TFE Teflon, color-coded, cabled, silver-plated copper braid shield, white TFE Teflon tape-wrapped jacket. MIL-SPEC: MIL-W-16878/4 (Type E). Temperature Rating: −65C to 200C. Voltage: 600V (RMS).

	**83304†**	1	100¶ 500¶ 1000¶	30.5 152.4 304.8	1.1 4.0 8.0	(19x36)	.010	.25	.010	.25	.082	2.08	White	—	—	47	154
	83318†	2	100¶ 500¶ 1000¶	30.5 152.4 304.8	1.7 7.6 18.3	(19x36)	.010	.25	.010	.25	.130	3.30	White Black	27	89	43	141
	83333†	3	100¶ 500¶ 1000¶	30.5 152.4 304.8	2.1 9.6 22.2	(19x36)	.010	.25	.010	.25	.137	3.48	White Black Red	22	72	39	128
90% Shield Coverage	**83348†**	4	100¶ 500¶ 1000¶	30.5 152.4 304.8	2.3 11.3 26.1	(19x36)	.010	.25	.010	.25	.148	3.76	White Black Red Green	22	72	36	118

22 Gage
Stranded Conductors (19x34)

Product Description
Stranded silver-coated copper conductors, insulated with extruded TFE Teflon, color-coded, cabled, silver-plated copper braid shield, white TFE Teflon tape-wrapped jacket. MIL-SPEC: MIL-W-16878/4 (Type E). Temperature Rating: −65C to 200C. Voltage: 600V (RMS).

	**83305†**	1	100¶ 500¶ 1000¶	30.5 152.4 304.8	1.2 4.9 9.7	(19x34)	.010	.25	.010	.25	.086	2.24	White	—	—	59	194
	83319†	2	100¶ 500¶ 1000¶	30.5 152.4 304.8	2.0 9.2 21.5	(19x34)	.010	.25	.010	.25	.142	3.61	White Black	30	98	50	164
	83334†	3	100¶ 500¶ 1000¶	30.5 152.4 304.8	2.5 11.9 26.8	(19x34)	.010	.25	.010	.25	.150	3.81	White Black Red	28	92	46	151
90% Shield Coverage	**83349†**	4	100¶ 500¶ 1000¶	30.5 152.4 304.8	3.0 14.5 31.3	(19x34)	.010	.25	.010	.25	.164	4.17	White Black Red Green	24	79	39	128

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
†Passes the VW-1 Vertical Wire Flame Test.
◑DuPont trademark
¶Spools may contain more than one piece. Length may vary ±10% from length shown.

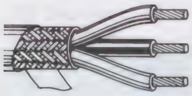
Multi-Conductor Cables

Overall Braid Shield

MIL-W-16878/4 (Type E)—Individual Conductors

20 Gage
Stranded Conductors (19x32)

Product Description
Stranded silver-coated copper conductors, insulated with extruded TFE Teflon◑, color-coded, cabled, silver-plated copper braid shield, white TFE Teflon tape-wrapped jacket. MIL-SPEC: MIL-W-16878/4 (Type E). Temperature Rating: −65C to 200C. Voltage: 600V (RMS).

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m
	**83306†**	1	100¶ 500¶ 1000¶	30.5 152.4 304.8	1.4 6.2 11.8	(19x32)	.010	.25	.010	.25	.088	2.24	White	—	—	69	226
	83320†	2	100¶ 500¶ 1000¶	30.5 152.4 304.8	2.4 11.4 25.8	(19x32)	.010	.25	.010	.25	.158	4.01	White Black	32	104	51	167
	83335†	3	100¶ 500¶ 1000¶	30.5 152.4 304.8	3.1 18.7 35.5	(19x32)	.010	.25	.010	.25	.167	4.24	White Black Red	29	95	46	151
90% Shield Coverage	**83350†**	4	100¶ 500¶ 1000¶	30.5 152.4 304.8	3.8 21.5 39.5	(19x32)	.010	.25	.010	.25	.181	4.60	White Black Red Green	28	92	46	151

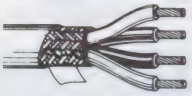
18 Gage
Stranded Conductors (19x30)

Product Description
Stranded silver-coated copper conductors, insulated with extruded TFE Teflon, color-coded, cabled, silver-plated copper braid shield, white TFE Teflon tape-wrapped jacket. MIL-SPEC: MIL-W-16878/4 (Type E). Temperature Rating: −65C to 200C. Voltage: 600V (RMS).

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m
	83307†	1	100¶ 500¶ 1000¶	30.5 152.4 304.8	1.9 8.5 16.5	(19x30)	.010	.25	.010	.25	.111	2.82	White	—	—	72	236
	83321†	2	100¶ 500¶ 1000¶	30.5 152.4 304.8	3.1 18.4 32.8	(19x30)	.010	.25	.010	.25	.180	4.57	White Black	31	102	53	174
	83336†	3	100¶ 500¶ 1000¶	30.5 152.4 304.8	5.0 21.4 45.4	(19x30)	.010	.25	.010	.25	.191	4.83	White Black Red	32	105	54	177
90% Shield Coverage	**83351†**	4	100¶ 500¶ 1000¶	30.5 152.4 304.8	5.1 28.2 55.1	(19x30)	.010	.25	.010	.25	.209	5.31	White Black Red Green	31	102	53	174

16 Gage
Stranded Conductors (19x29)

Product Description
Stranded silver-coated copper conductors, insulated with extruded TFE Teflon, color-coded, cabled, silver-plated copper braid shield, white TFE Teflon tape-wrapped jacket. MIL-SPEC: MIL-W-16878/4 (Type E). Temperature Rating: −65C to 200C. Voltage: 600V (RMS).

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m
	**83308†**	1	100¶ 500¶ 1000¶	30.5 152.4 304.8	2.2 9.9 23.3	(19x29)	.012	.30	.010	.25	.122	3.10	White	—	—	73	240
	83322†	2	100¶ 500¶ 1000¶	30.5 152.4 304.8	3.9 22.2 43.4	(19x29)	.012	.30	.010	.25	.202	5.13	White Black	36	118	60	197
	83337†	3	100¶ 500¶ 1000¶	30.5 152.4 304.8	6.9 28.3 55.3	(19x29)	.012	.30	.010	.25	.215	5.46	White Black Red	31	102	53	174
90% Shield Coverage	**83352†**	4	100¶ 500¶ 1000¶	30.5 152.4 304.8	8.0 34.1 66.8	(19x29)	.012	.30	.010	.25	.236	5.99	White Black Red Green	31	102	51	167

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
†Passes the VW-1 Vertical Wire Flame Test.
◑DuPont trademark
¶Spools may contain more than one piece. Length may vary ±10% from length shown.

One Triplet Cables

Overall Beldfoil® Shield

Control and Instrumentation Cables

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m			Inch	mm	Inch	mm	Inch	mm
20 Gage Stranded Conductors (7x28)												
 Beldfoil Kapton® Aluminum 100% Shield Coverage	**85240†**	3	100 500§ 1000§	30.5 152.4 304.8	4.7 17.7 34.1	20 (7x28)	.015	.38	.020	.50	.193	4.90
							Product Description: Tinned copper conductors, Tefzel® insulated, conductors cabled, overall Beldfoil aluminum-Kapton shield and drain wire, clear Tefzel jacket. 150C. 300V (RMS). Color code: Black, Red, Green.					
16 Gage Stranded Conductors (19x29)												
	85241†	3	100 500§ 1000§	30.5 152.4 304.8	6.6 26.7 52.7	16 (19x29)	.015	.38	.020	.50	.225	5.72
							Product Description: Tinned copper conductors, Tefzel insulated, conductors cabled, overall Beldfoil aluminum-Kapton shield and drain wire, clear Tefzel jacket. 150C. 300V (RMS). Color code: Black, Red, Green.					

Paired Cables

Unshielded

Control and Instrumentation Cables

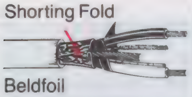
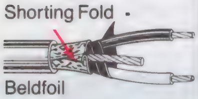
Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m			Inch	mm	Inch	mm	Inch	mm
20 Gage Stranded Conductors (7x28)												
	85220†	1	100 500§ 1000§	30.5 152.4 304.8	4.0 14.0 26.6	20 (7x28)	.015	.38	.020	.50	.185	4.70
							Product Description: Tinned copper conductors, Tefzel insulated, conductors cabled, clear Tefzel jacket. 150C. 300V (RMS). Color code: Black, Red.					
16 Gage Stranded Conductors (19x29)												
	85221†	1	100 500§ 1000§	30.5 152.4 304.8	5.1 19.4 37.4	16 (19x29)	.015	.38	.020	.50	.215	5.46
							Product Description: Tinned copper conductors, Tefzel insulated, conductors cabled, clear Tefzel jacket. 150C. 300V (RMS). Color code: Black, Red.					

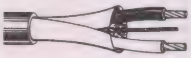
®DuPont trademark
†Passes the VW-1 Vertical Wire Flame Test.
§Spools are one piece, but length may vary ± 10% from length shown.

Paired Cables

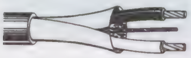
Overall Beldfoil® Shield

Control and Instrumentation Cables

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
22 Gage Stranded Conductors (7x30)																
Shorting Fold  Beldfoil 100% Shield Coverage	**83394** Teflon◑ and Silicone	1	25 100 U-500 500¶	7.6 30.5 U-152.4 152.4	1.0 2.7 13.8 13.0	(7x30)	.015	.38	.030	.76	.204	5.18	22	72	42	138
						Product Description: Tinned copper, insulated with FEP Teflon, twisted pair, noise reducing tape, 22 AWG (7x30) stranded tinned copper drain wire, special Beldfoil shield, red Silicone rubber jacket. +150C maximum −70C minimum operating temperature. 100% shield coverage. Jacket working voltage: 2000V DC, shield to ground. Color code: Black, White.										
20 Gage Stranded Conductors (7x28)																
Shorting Fold  Beldfoil 100% Shield Coverage	**83393** Teflon and Silicone	1	25 100¶ U-500 500¶	7.6 30.5 U-152.4 152.4	1.3 4.4 20.1 20.4	(7x28)	.020	.51	.030	.76	.242	6.15	22	72	42	138
						Product Description: Tinned copper, insulated with FEP Teflon, twisted pair, noise reducing tape, 20 AWG (10x30) stranded tinned copper drain wire, special Beldfoil shield, yellow Silicone rubber jacket. +150C maximum −70C minimum operating temperature. Jacket working voltage: 2000V DC, shield to ground. Color code: Black, Red.										

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m		Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
20 Gage Stranded Conductors (7x28)															
 Beldfoil Kapton◑-Aluminum 100% Shield Coverage	**85230†**	1	100 500§ 1000§	30.5 152.4 304.8	4.2 14.8 28.2	.015	.38	.020	.50	.182	4.62	31	102	59	194
						Color code: Black, Red.									
	85164†	4	100 500§ 1000§	30.5 152.4 304.8	10.6 40.2 81.2	.015	.38	.025	.63	.344	8.74	23	75	40	131
						Color code: Black/Red, Black/Green, Black/Orange, Black/Blue.									
	85168†	8	100 500§ 1000§	30.5 152.4 304.8	14.8 61.0 143.3	.015	.38	.025	.63	.439	11.15	23	75	40	131
						Color code: Black/Red, Black/Green, Black/Orange, Black/Blue, Black/Red, Black/Green, Black/Orange, Black/Blue.									

Product Description
Tinned copper, clear Tefzel◑ insulated, pairs cabled together, overall Beldfoil aluminum-Kapton shield and drain wire, clear Tefzel jacket. 150C. 300V (RMS).

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m			Inch	mm	Inch	mm	Inch	mm
16 Gage Stranded Conductors (19x29)												
 Beldfoil Kapton-Aluminum 100% Shield Coverage	**85231†**	1	100 500§ 1000§	30.5 152.4 304.8	5.5 21.6 41.8	16 (19x29)	.015	.38	.020	.50	.212	5.38
							Product Description Tinned copper, clear Tefzel insulated, conductors cabled, overall Beldfoil aluminum-Kapton shield and drain wire, clear Tefzel jacket. 150C. 300V (RMS). Color code: Black, Red.					

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductor connected to shield.
◑DuPont trademark
†Passes the VW-1 Vertical Wire Flame Test.
¶Spools may contain more than one piece. Length may vary ± 10% from length shown.
§Spools are one piece, but length may vary ± 10% from length shown.

Coaxial Cables

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 RG-141A/U **MIL-C-17D**	**83241**† 200C	100¶ 500¶ 1000¶	30.5 152.4 304.8	5.6 22.0 42.7	18 (Solid) .037 silver coated copper covered steel 16.3Ω/M′ 53.5Ω/km	TFE Teflon .116	2.95	.190	4.83	Silver coated copper 4.26Ω/M′ 14.0Ω/km 97% shield coverage	50 Brown fiber glass jacket.	69.5%	29.0	95.10	50 100 200 400 700 900 1000	2.1 3.2 4.7 6.9 10.0 12.0 13.0	6.9 10.5 15.4 22.6 32.8 39.4 42.7
 RG-142B/U **MIL-C-17D**	**83242**† 200C	100¶ 500¶ 1000¶	30.5 152.4 304.8	6.4 25.8 50.3	18 (Solid) .037 silver coated copper covered steel 16.3Ω/M′ 53.5Ω/km	TFE Teflon .116	2.95	.195	4.95	2 silver coated copper 2.28Ω/M′ 7.5Ω/km 98% shield coverage	50 Tinted brown FEP jacket.	69.5%	29.0	95.20	50 100 200 400 700 900 1000	2.7 3.9 5.6 8.2 11.0 12.5 13.5	8.9 12.8 18.4 26.9 36.1 41.0 44.3
 RG-178B/U **MIL-C-17D**	**83265**† 200C	100¶ 500¶ 1000¶	30.5 152.4 304.8	.8 3.0 9.5	30 (7x38) .012 silver coated copper covered steel 250.0Ω/M′ 820.2Ω/km	TFE Teflon .034	.86	.072	1.83	Silver coated copper 14.6Ω/M′ 47.9Ω/km 96% shield coverage	50 Tinted brown FEP jacket.	69.5%	29.0	95.10	50 100 200 400 700 900 1000	10.5 14.0 19.0 28.0 37.0 42.5 46.0	34.4 45.9 62.3 91.9 121.4 139.4 150.9
 RG-179B/U **MIL-C-17D**	**83264**† 200C	100¶ 500¶ 1000¶	30.5 152.4 304.8	1.3 5.5 10.5	30 (7x38) .012 silver coated copper covered steel 250.0Ω/M′ 820.3Ω/km	TFE Teflon .063	1.60	.100	2.54	Silver coated copper 8.5Ω/M′ 27.9Ω/km 95% shield coverage	75 Tinted brown FEP jacket.	69.5%	19.5	64.00	50 100 200 400 700 900 1000	8.5 10.0 12.5 16.0 19.7 22.3 24.0	27.9 32.8 41.0 52.5 64.6 73.3 78.7
 RG-180B/U **MIL-C-17D**	**83266**† 200C	100¶ 500¶ 1000¶	30.5 152.4 304.8	2.1 9.5 22.0	30 (7x38) .012 silver coated copper covered steel 250.0Ω/M′ 820.3Ω/km	TFE Teflon .102	2.60	.140	3.56	Silver coated copper 6.5Ω/M′ 21.3Ω/km 95% shield coverage	95 Tinted brown FEP jacket.	69.5%	15.0	49.21	50 100 200 400 700 900 1000	4.6 5.7 7.6 10.7 14.9 15.9 17.0	15.1 18.7 24.9 35.1 48.9 52.2 55.8

†Passes the VW-1 Vertical Wire Flame Test.
¶Spools may contain more than one piece. Length may vary ±10% from length shown.
For cables manufactured to latest government revision, please contact your nearest Belden Regional Sales Office.

High Temperature
MIL-C-17

Coaxial Cables

Description	Trade & U.L. Style Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D. Inch	Insulation & Nominal Core O.D. mm	Nominal O.D. Inch	Nominal O.D. mm	No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance pF/ft.	Nominal Capacitance pF/m	Nominal Attenuation MHz	Nominal Attenuation db/100 ft.	Nominal Attenuation db/100 m
RG-187A/U **MIL-C-17D**	**83267†** 200C	100¶ 500¶ 1000¶	30.5 152.4 304.8	1.3 5.8 11.1	30 (7x38) .012 silver coated copper covered steel 250.0Ω/M' 820.3Ω/km	TFE Teflon◑ .063	1.60	.105	2.66	Silver coated copper 8.5Ω/M' 27.9Ω/km 93% shield coverage	75 White TFE tape wrapped jacket.	69.5%	19.5	64.0	50 100 200 400 700 900 1000	8.5 10.0 12.5 16.0 19.7 22.3 24.0	27.9 32.8 41.0 52.5 64.6 73.2 78.7
RG-188A/U **MIL-C-17D**	**83269†** 200C	100¶ 500¶ 1000¶	30.5 152.4 304.8	1.3 5.5 11.0	26 (7x.0067) .020 silver coated copper covered steel 91.2Ω/M' 299.4Ω/km	TFE Teflon .060	1.52	.102	2.59	Silver coated copper 8.51Ω/M' 27.9Ω/km 95% shield coverage	50 White TFE tape wrapped jacket.	69.5%	29.0	95.2	50 100 200 400 700 900 1000	9.6 11.4 14.2 16.7 25.2 28.5 31.0	31.5 37.4 46.6 54.8 82.7 93.5 101.7
RG-196A/U **MIL-C-17D**	**83270†** 200C	100¶ 500¶ 1000¶	30.5 152.4 304.8	.8 3.2 6.3	30 (7x38) .012 silver coated copper covered steel 250.0Ω/M' 820.2Ω/km	TFE Teflon .034	.86	.076	1.93	Silver coated copper 14.6Ω/M' 47.9Ω/km 95% shield coverage	50 White TFE tape wrapped jacket.	69.5%	29.0	95.2	50 100 200 400 700 900 1000	10.5 14.0 19.0 28.0 37.0 42.5 46.0	34.4 45.9 62.3 91.9 121.4 139.4 150.9
RG-303/U **MIL-C-17D**	**83282†** 200C	100¶ 500¶ 1000¶	30.5 152.4 304.8	5.0 19.1 36.8	18 (Solid) .037 silver coated copper covered steel 16.3Ω/M' 53.5Ω/km	TFE Teflon .116	2.95	.170	4.31	Silver coated copper 4.26Ω/M' 14.0Ω/km 95% shield coverage	50 Tinted brown FEP jacket.	69.5%	29.0	95.2	50 100 200 400 700 900 1000	2.1 3.2 4.7 6.9 10.0 12.0 13.0	6.9 10.5 15.4 22.6 32.8 39.4 42.7
RG-316/U **MIL-C-17D**	**83284†** 200C	100¶ 500¶ 1000¶	30.5 152.4 304.8	1.3 5.5 10.5	26 (7x.0067) .020 silver coated copper covered steel 91.2Ω/M' 299.4Ω/km	TFE Teflon .060	1.52	.098	2.49	Silver coated copper 8.51Ω/M' 27.9Ω/km 95% shield coverage	50 Tinted brown FEP jacket.	69.5%	29.0	95.2	50 100 200 400 700 900 1000	9.4 10.4 13.2 16.5 22.1 27.2 31.0	30.8 34.1 43.3 54.1 72.5 89.2 101.7

Twinaxial

77 ohm

Description	Trade & U.L. Style Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In.	Insulation & Nominal Core O.D. Inch	Insulation & Nominal Core O.D. mm	Nominal O.D. Inch	Nominal O.D. mm	No. of Shields & Material Nom. D.C.R.	Nom. Vel. of Prop.	Nominal Capacitance pF/ft.	Nominal Capacitance pF/m	Inductance* nH/ft.	Inductance* nH/m
MIL-C-17/176	**New** **81553**	100 500¶ 1000¶	30.5 152.4 304.8	1.9 9.8 19.5	24 (19x36), (.0235), silver plated high strength copper alloy	TFE Insulated .042	1.07	.129	3.28	Silver plated high strength copper alloy 93% shield coverage	63% Color code: Blue, White. Blue translucent PFA Teflon jacket.	24 max.	78.74 max.	118 min.	387.1 min.

*Inductance (L) is measured at 1 MHz for a 10 ft. 2 inch test cable. This shield shall be floated. The end of the cable shall be shorted. The impedance (Z) shall then be calculated using the following formula: $Z = \sqrt{\frac{L}{C}}$ where inductance = L and capacitance = C

†Passes the VW-1 Vertical Wire Flame Test.

¶Spools may contain more than one piece. Length may vary ± 10% from length shown.

◑DuPont trademark

Please call Belden for other MIL Spec requirements.

For cables manufactured to latest government revision, please contact your nearest Belden Regional Sales Office.

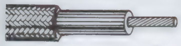
TAGT High Temperature Appliance Lead Wire

Application: Internal wiring of domestic, commercial and industrial heating, and cooking equipment and appliances for both damp and dry applications. The insulation provides an excellent high dielectric, high temperature lead wire having flexibility and strippability coupled with abrasion, chemical and moisture resistance not generally found in appliance wire.

Listing: Underwriters' Laboratories Inc. and by Canadian Standards Association as Type TAGT for 250C continuous operation at 600V.

600V-250C

Product Description
Flexible stranded nickel-plated copper. TFE Teflon[◑] tape, felted asbestos impregnated with flame, moisture and high temperature resisting finish and glass braid impregnated with a Teflon finish. Color code: Natural Tan.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Nominal O.D.	
		ft.	m			Inch	mm	Inch	mm
	**83061†**	100 500§ 1000§	30.5 152.4 304.8	1.6 7.2 17.3	18 (16x30)	.027	.69	.120	3.05
UL TAGT	**83062†**	100 500§ 1000§	30.5 152.4 304.8	1.9 8.6 20.3	16 (26x30)	.027	.69	.128	3.25
	83063†	100 500§ 1000§	30.5 152.4 304.8	2.5 11.8 26.5	14 (41x30)	.027	.69	.142	3.60
	83064†	100 500§ 1000§	30.5 152.4 304.8	5.1 19.6 35.3	12 (65x30)	.027	.69	.162	4.12
	83065†	100 500§ 1000§	30.5 152.4 304.8	6.6 28.1 54.9	10 (105x30)	.027	.69	.202	5.13
	83066†	100 500§ 1000§	30.5 152.4 304.8	8.7 39.0 76.7	8 (133x29)	.027	.69	.233	5.92

†Passes the VW-1 Vertical Wire Flame Test.
◑DuPont trademark
§Spools are one piece, but length may vary ± 10% from length shown.

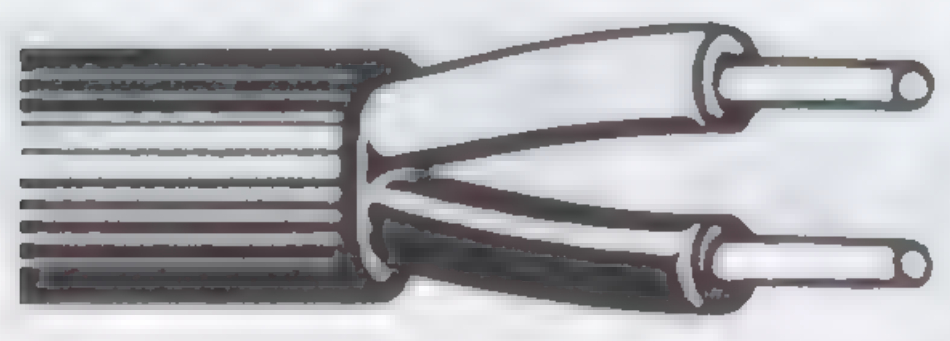
Thermocouple Wire and Extension Wire

A thermocouple is the joining of two dissimilar metal conductors. Voltage is generated when there is a temperature change at the junction of the two conductors. The voltage is transmitted to a calibrated meter which monitors the temperature changes.

The most common use for thermocouple is process instrumentation where temperature monitoring is critical.

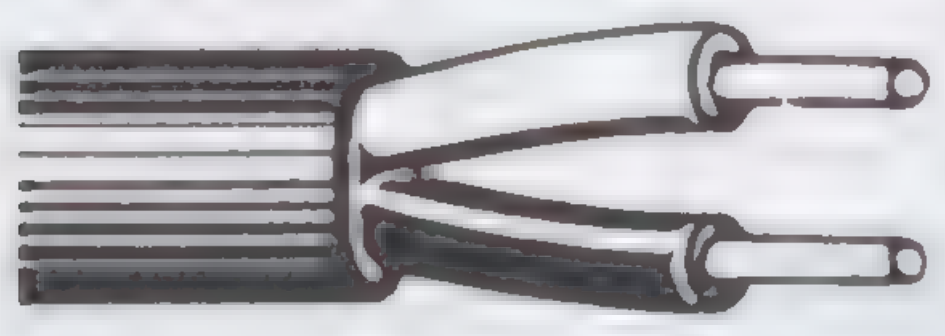
FEP Teflon® Thermocouple Wire Insulated and Jacketed/Duplex Unshielded

Product Description
Solid conductor (see chart page 154 for type conductor), FEP Teflon insulated, conductors parallel. FEP Teflon jacket.

Description	Type	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding
				ft.	m			Inch	mm	Inch	mm	Inch	mm	
	J	**83900†**	2	100 500§ 1000§	30.5 152.4 304.8	1.6 7.3 17.6	20 (Solid)	.010	.25	.015	.38	.082 x .134	2.08 x 3.40	See Chart page 154
	K	**83905†**	2	100 500§ 1000§	30.5 152.4 304.8	1.6 7.4 17.9	20 (Solid)	.010	.25	.015	.38	0.82 x .134	2.08 x 3.40	See Chart page 154
	T	**83910†**	2	100 500§ 1000§	30.5 152.4 304.8	1.6 7.4 17.9	20 (Solid)	.010	.25	.015	.38	.082 x .134	2.08 x 3.40	See Chart page 154
	E	**83915†**	2	100 500§ 1000§	30.5 152.4 304.8	1.6 7.4 17.9	20 (Solid)	.010	.25	.015	.38	.082 x .134	2.08 x 3.40	See Chart page 154

Thermocouple Extension Wire FEP Teflon Insulated and Jacketed/Duplex Unshielded

Product Description
Conductor (see chart page 154 for type conductor), FEP Teflon insulated, conductors parallel, FEP Teflon jacket.

	JX	**83930†**	2	500§ 1000§	152.4 304.8	9.5 19.0	20 (7x28)	.010	.25	.015	.38	.088 x .146	2.24 x 3.70	See Chart page 154
	KX	**83932†**	2	500§ 1000§	152.4 304.8	7.4 17.9	20 (Solid)	.010	.25	.015	.38	.082 x .134	2.08 x 3.40	See Chart page 154
	TX	**83934†**	2	500§ 1000§	152.4 304.8	7.4 17.9	20 (Solid)	.010	.25	.015	.38	.082 x .134	2.08 x 3.40	See Chart page 154

®DuPont trademark
†Passes the VW-1 Vertical Wire Flame Test.
See also PVC Thermocouple Extension Wire on page 193.
§Spools are one piece, but length may vary ± 10% from length shown.

Thermocouple Extension Wire

FEP Teflon[D] Insulated and Jacketed/Twisted and Shielded

Product Description
Conductor (see chart page 154 for type conductor), FEP Teflon insulated, conductors cabled, Beldfoil shield with drain wire, FEP Teflon jacket.

Description	Type	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding
				ft	m			Inch	mm	Inch	mm	Inch	mm	
	JX	**83950**†	2	500§ 1000§	152.4 304.8	9.6 22.1	20 (7x28)	.010	.25	.015	.38	.151	3.84	See Chart page 154
Beldfoil® 100% Shield Coverage	JX	**83951**†	2	500§ 1000§	152.4 304.8	21.2 41.1	16 (7x24)	.010	.25	.015	.38	.193	4.90	See Chart page 154
	KX	**83952**†	2	500§ 1000§	152.4 304.8	9.8 22.5	20 (7x28)	.010	.25	.015	.38	.151	3.84	See Chart page 154
	KX	**83953**†	2	500§ 1000§	152.4 304.8	21.7 42.0	16 (7x24)	.010	.25	.015	.38	.193	4.90	See Chart page 154
	TX	**83954**†	2	500§ 1000§	152.4 304.8	9.8 22.6	20 (7x28)	.010	.25	.015	.38	.151	3.84	See Chart page 154
	EX	**83955**†	2	500§ 1000§	152.4 304.8	9.8 22.5	20 (7x28)	.010	.25	.015	.38	.151	3.84	See Chart page 154

Tefzel[D] Insulated and Jacketed/Twisted and Shielded

Product Description
Solid conductor (see chart page 154 for type conductor), Tefzel insulated, conductors cabled, Beldfoil shield with drain wire, Tefzel jacket. Jacket color: Clear with identifying tape under jacket (conductor color code is same as all other Thermocouple extension wires).

Description	Type	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding
				ft	m			Inch	mm	Inch	mm	Inch	mm	
	JX	**83965**†	2	500§ 1000§	152.4 304.8	21.6 41.9	16 (Solid)	.015	.38	.020	.50	.208	5.28	See Chart page 154
	KX	**83975**†	2	500§ 1000§	152.4 304.8	22.0 42.7	16 (Solid)	.015	.38	.020	.50	.208	5.28	See Chart page 154
	TX	**83985**†	2	500§ 1000§	152.4 304.8	22.0 42.6	16 (Solid)	.015	.38	.020	.50	.208	5.28	See Chart page 154
	EX	**83995**†	2	500§ 1000§	152.4 304.8	22.0 42.7	16 (Solid)	.015	.38	.020	.50	.208	5.28	See Chart page 154

[D] DuPont trademark
†Passes the VW-1 Vertical Wire Flame Test.
§Spools are one piece, but length may vary ± 10% from length shown.

Thermocouple Extension Wire

Type

Grade	Extension	Positive Wires	Negative Wires	Grade	Extension	Positive Wires	Negative Wires
J	JX	Iron	Constantan	T	TX	Copper	Constantan
K	KX	Chromel	Alumel	E	EX	Chromel	Constantan

General Characteristics of Thermocouple Wire Insulations

Insulation	Jacket	Temp. C (°F)		Flame	Mechanical Properties		Chemical Properties (Resistance to)			
		Cont.	Inter.		Abrasion Res.	Flexibility	Solvents	Acids	Bases	Moisture
Teflon◑ (FEP)†	Teflon (FEP)†	205 (400)	—	E	E	G	E	E	E	E
Glass Braid with Silicone	Glass Braid with Silicone	482 (900)	538 (1000)	E	F/G	G	E	E	E	F/G (to 204C)
Tefzel◑†	Tefzel†	150 (302)	—	E	E	F	E	E	E	E

E = Excellent G = Good F = Fair P = Poor

Identifying Thermocouple Wire and Limits of Error

ISA Symbol	Temperature Range °F	Limits of Error Standard	Jacket Color Overall	Insulation Color Code		Conductor Identification	
				Pos. (+)	Neg. (−)	Positive (+)	Negative (−)
J	32 to 530 530 to 1400	±4°F ±¾%	Brown⊗	White	Red	Magnetic	Nonmagnetic
T	−150 to −75 −75 to +200 200 to 700	±2% ±1½°F ±¾%	Brown⊗	Blue	Red	Copper Color	Nonmagnetic
K	32 to 530 530 to 2300	±4°F ±¾%	Brown⊗	Yellow	Red	Nonmagnetic	Magnetic
E	32 to 600 600 to 1600	±3°F ±½%	Brown⊗	Purple	Red	Nonmagnetic	Silver color, Nonmagnetic
JX TX KX EX	0 to 400 75 to 200 0 to 400 0 to 400	±4°F ±1½°F ±4°F ±3°F	Black Blue Yellow Purple	White Blue Yellow Purple	Red Red Red Red		

◑DuPont trademark
†Passes the VW-1 Vertical Wire Flame Test.
⊗A tracer of the positive wire color on fiberglass jacketed wires indicates the calibration, except J calibration which has a black tracer.
Limits of error per ASA C96.1. Limits shown do not include system or installation error.
Percentages refer to the temperature being measured.

Fiber Optic Cables

Built for demanding applications and rugged environments

Belden offers a complete line of fiber cables for signal and data transmissions with complete freedom from EMI, RFI, lightning, ground loops and other types of electrical interference. Cables are "ruggedized" to meet the most challenging application requirements and tough enough to resist mechanical damage under some of the most demanding conditions of installation and use. Their optical properties are assured by a quality control system that includes 100% attenuation testing of all finished cables.

In addition to being free from various forms of electrical interference, Belden fiber optic cables offer repeaterless long distance transmission, high bandwidth, light weight and high density signal channels in a variety of applications. They cannot spark, short circuit or ignite combustible materials. Taken together, these outstanding characteristics make Belden fiber optic cables well suited for use in communications, data transmission, instrumentation, process control, industrial control, and many other applications that demand high signal integrity.

Custom Design Center

If you have a new or unusual application or you cannot find cable in this section which meets your technical requirements, contact Belden's Product Engineering Group. Phone 317/983-5200.

The cables in this section are organized as follows:

	Page(s)
1. BitLite® cables	158 & 159
2. General purpose cables	160 – 163
3. Heavy duty cables	164 & 165
4. Telecommunication cables	166 & 167
5. Multipurpose cables	168
6. Hybrid cables	169
7. Accessories	170

Cable Nomenclature

A six-digit product code is assigned to each cable style. The first three digits represent the type of optical fiber utilized in the cable. The remaining three digits in the code, XXX, are utilized to differentiate the other cable characteristics, such as number of conductors, jacket construction and materials, and as such have no unique meaning.

The fiber optic cables in this catalog are grouped into categories representing the three primary attributes of optical cable constructions: Type of optical fiber, number of optical fibers, cable structure and jacket materials.

Fiber Characteristics

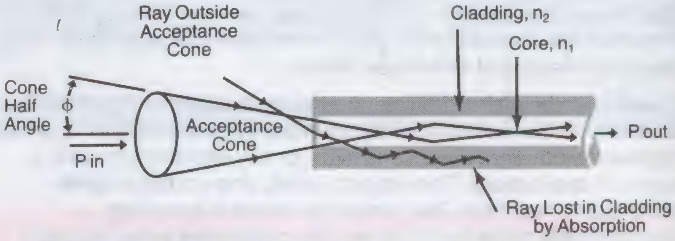
Cable Product Code	Core Diameter (microns)	Cladding Diameter (microns)	Numerical Aperture (NA)
221XXX	300	440	0.27
220XXX	200	380	0.27
226XXX	100	140	0.28
228XXX	85	125	0.20
227XXX	50	125	0.20

Optical Performance Range at 850 nm

Cable Attenuation	Cable Bandwidth
4-8 dB/km	20 MHz-km
4-8 dB/km	25 MHz-km
4-8 dB/km	20-300 MHz-km
3-6 dB/km	200-300 MHz-km
3-7 dB/km	200-800 MHz-km

Type of Optical Fiber **Number of Optical Fibers** **Cable Structure and Jacket Materials**

The cables described in this catalog are available in 1, 2, 4, 6, 8, 10, 12, and 18 fiber configurations. Other configurations, including hybrid designs incorporating one or more copper conductors, are available on special order.



P = Power

Numerical Aperture, NA

$$NA = \sin\phi = \sqrt{n_1^2 - n_2^2}$$

$$\text{Attenuation (dB)} = 10 \log \frac{P\,in}{P\,out}$$

Optical Fibers

In all types of cable structures, the individual optical fibers are the signal transmission media acting much the same as individual optical wave guides. The fibers have an all dielectric structure consisting of a central circular transparent core region which propagates the optical radiation and an outer cladding layer that completes the guiding structure. For low loss transmission, the core is typically silica glass while the cladding may be glass or polymer material (PCS, polymer clad silica). To achieve high signal bandwidth capabilities, the core region has a varying or graded refractive index.

The four major fiber parameters used in selecting the proper cable for an application are: bandwidth, attenuation, numerical aperture (NA), and core diameter.

▪ Bandwidth

The bandwidth at a specified optical radiation wavelength represents the highest sinusoidal light modulation frequency which can be transmitted through a length of fiber with an optical signal power loss equal to 50 percent (−3 dB) of the zero modulation frequency component. The bandwidth is expressed in megahertz (MHz) over a kilometer length (MHz-km).

▪ Attenuation

The optical attenuation denotes the amount of optical power loss due to absorption and scattering of optical radiation at a specified wavelength in a length of fiber. It is expressed as an attenuation rate in decibels of optical power per kilometer (dB/km).

The attenuation is determined by launching a narrow spectral band of light into the full length of fiber and measuring the transmitted intensity. This measurement is then repeated for the first 1.5 to 2.5 meters of the same fiber cable without disturbing the input end of the fiber. The dB/km attenuation is then calculated and normalized to 1 km.

▪ Numerical Aperture (NA)

The numerical aperture is a measure of the angular light acceptance for a fiber. It is the sine of the largest meridional ray angle that can be accepted by the fiber and, as such, is a dimensionless number. Substantially 100 percent of the output optical power is contained within this angle.

▪ Core Diameter

The fiber core is the central region of an optical fiber whose refractive index is higher than that of the fiber cladding. Various core diameters (from 50 microns to 300 microns) are available in our standard product line to permit the most efficient coupling of light from commercially available light sources, such as LEDs or laser diodes.

Optical Collection Factor

All of these optical fiber parameters interact to offer numerous options for various applications. Table 1 illustrates the effect of core diameter and numerical aperture upon the light gathering capability of various commercial fibers. The optical collection factor can be considered a measure of the fiber's collection efficiency for optical radiation.

Table 1

Fiber Core Dia. Microns	Numerical Aperture	Collection Factor	
		Relative*	dB Ratio
300	0.27	14.1	+11.5
200	0.27	6.2	+ 8.0
200	0.18	1.6	+ 2.2
100	0.50	3.2	+ 5.0
100	0.28	1.0	+ 0.0
85	0.26	0.62	− 2.1
62	0.29	0.4	− 3.8
50	0.20	0.13	− 8.9

*Values normalized to short length of 100 micron core fiber.

Cable Structure

▪ Loose Buffer

Currently two general cable constructions are employed to contain the optical fibers. The first is a loose buffer tube construction where the fiber is contained in a plastic tube that has an inner diameter considerably larger than the fiber itself. This provides a high level of isolation for the fiber from exterior mechanical forces present on the cable. For multifiber cables a number of these tubes, each containing a single fiber, are combined with the necessary longitudinal strength members. Note: For multifiber (4 through 18 fibers) and "Multipurpose" loose tube cables, a breakout kit or assembly is required for attaching single fiber connectors. See the accessories page near the end of the fiber optic section for details on breakout kits and assemblies.

▪ Tight Buffer

The second cable construction is a tight buffer design, such as used in Belden BitLite® products. Here, a thicker buffer coating is placed directly on the fiber which is concentrically surrounded by a Kevlar◑ layer for added strength and protection. An outer jacket, generally polyurethane, completes the cable structure. The result is a lightweight and highly flexible product.

Both constructions have inherent advantages. The loose buffer tube construction offers lower cable attenuation from a given fiber, plus a high level of isolation from external forces. This means more stable transmission characteristics under continuous mechanical stress. The tight buffer construction permits smaller, lighter weight designs for a similar fiber configuration and generally yields a more flexible, crush-resistant cable. A trade-off between these structures is shown in Table 2.

Belden incorporates both cable structures into its standard fiber optic cable product line to permit the maximum flexibility in choosing the optimum cable.

Table 2

Cable Parameter	Cable Structure	
	Loose Tube	Tight Buffer
Bend Radius	Larger	Smaller
Diameter	Larger	Smaller
Tensile Strength, Installation	Higher	Lower
Impact Resistance	Lower	Higher
Crush Resistance	Lower	Higher
Attenuation Change At Low Temperatures	Lower	Higher

Strength Members

Once the optical fiber is surrounded with a buffer, either loose or tight, strength members are added to the cable structure to keep the fibers free from stress and minimize elongation and contraction. Such strength members provide the tensile load properties similar to electronic cables and, in some cases, are used as temperature stabilization elements. Belden cables employ both metallic and dielectric strength members, such as steel wire, Kevlar◑, fiberglass epoxy rods or combinations, e.g. plastic coated braided steel wire.

Jacket

As with conventional wire cables, the jacket ultimately protects the core from the external environment. With optical fibers, however, the selection of materials is influenced by the fact that the thermal coefficient of glass is significantly lower than the metal or plastic used in the cable structure. An example of this difference is:

Material	Coefficient of Expansion x 10^{-6} cm/cm°C	Modulus of Elasticity kg/mm^2
Glass Fiber	0.8 - 1.7	7000
Steel	11 - 18	19000
Polyethylene (LD)	100 - 200	17

In addition, the various plastics used as jackets exhibit different characteristics when exposed to the physical and chemical effects of the operating environment. Typical trade-off characteristics of jacketing materials are listed on page 14 of this catalog.

Installation

Normal cable loads sustained during installation or environmental movements first stress the strength members without transferring the stress to the optical fibers. If the load is increased, the fiber may ultimately be placed in a tensile stress state. This level of stress may cause microbending losses which result in attenuation increase and possibly fatigue effects. To prevent irreversible changes, cables should be loaded during installation only for short periods. All Belden cables are rated for both short-term installation and long-term application loads.

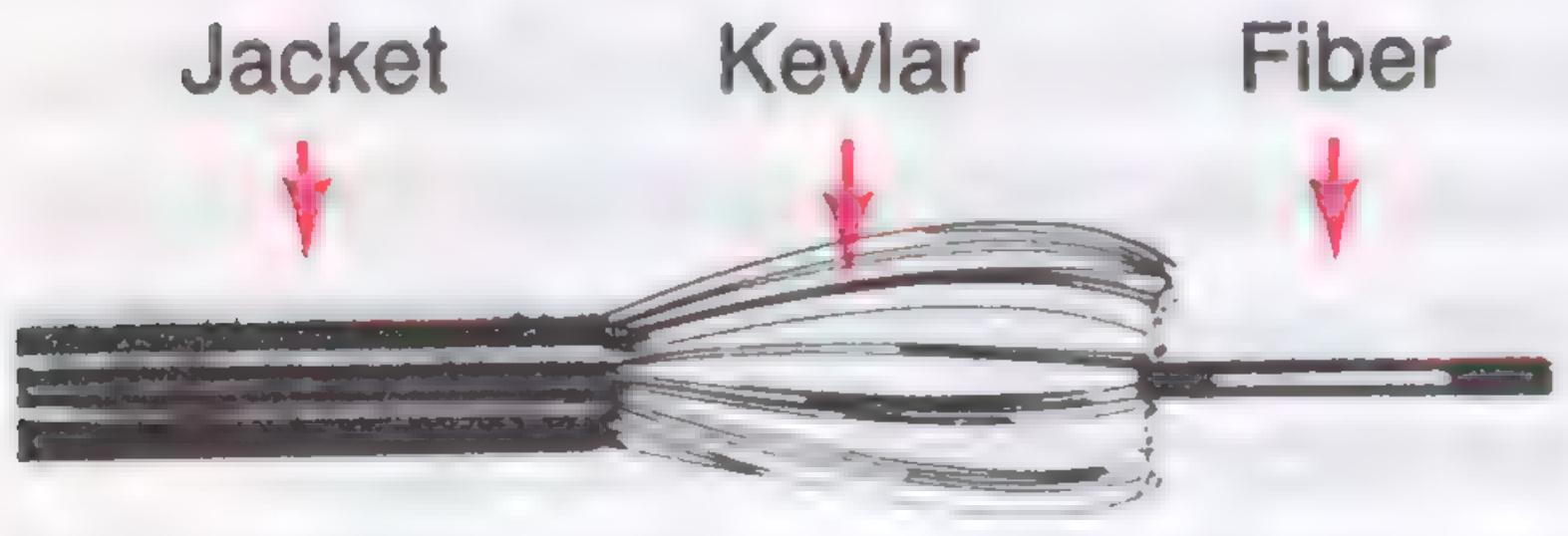
Belden's fiber optic cables are available with numerous combinations of jacket materials suitable for installation in underground ducts, aerial, direct burial, plenum or cable raceways. Selected cables meet the requirements of the U.L. VW-1 test, IEEE 383 flame test and the Nuclear Regulatory Commission 70,000 BTU/HR flame test.

Lifetime

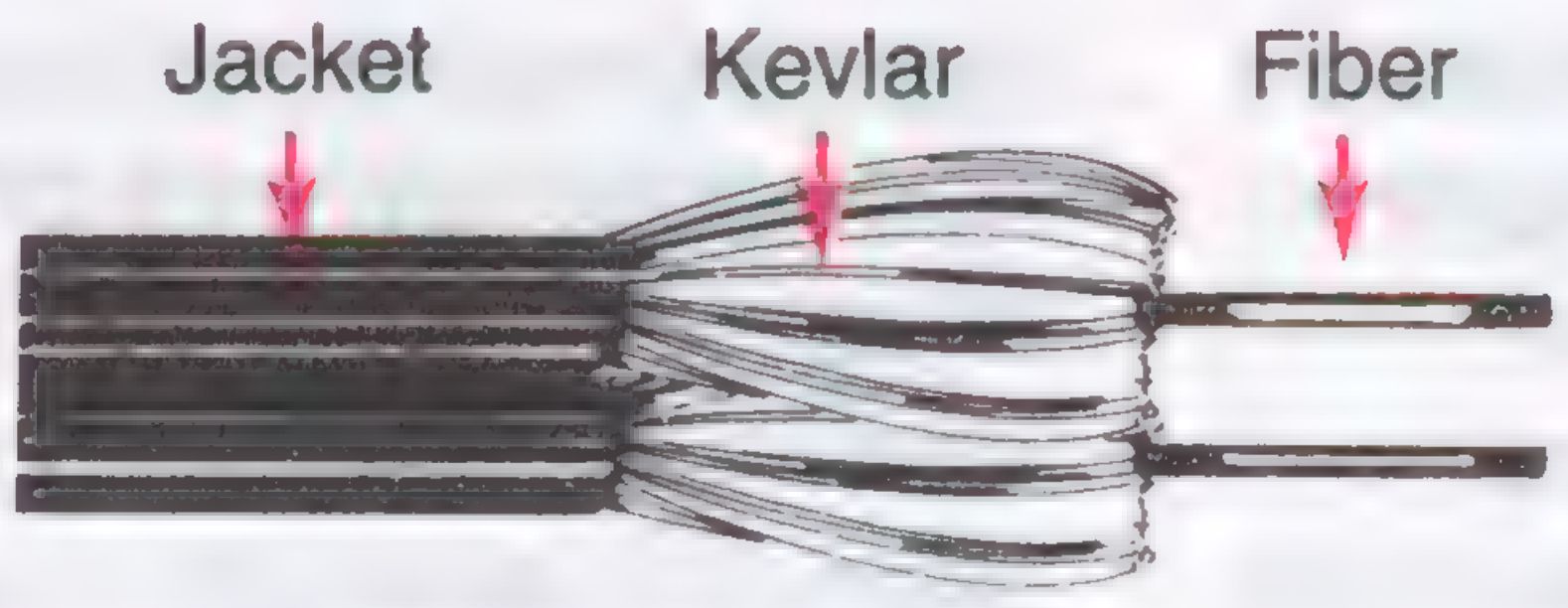
Normal cable lifetime is projected to be in excess of 40 years. However, it should be noted that a cable's lifetime is directly related to the mechanical and environmental conditions it experiences. The materials and structure used in Belden's fiber optic cables have been tested by accelerated aging conditions similar to that of conventional cable products and indicate a potential lifetime in excess of 40 years for normal indoor and protected outdoor installations.

◑DuPont trademark

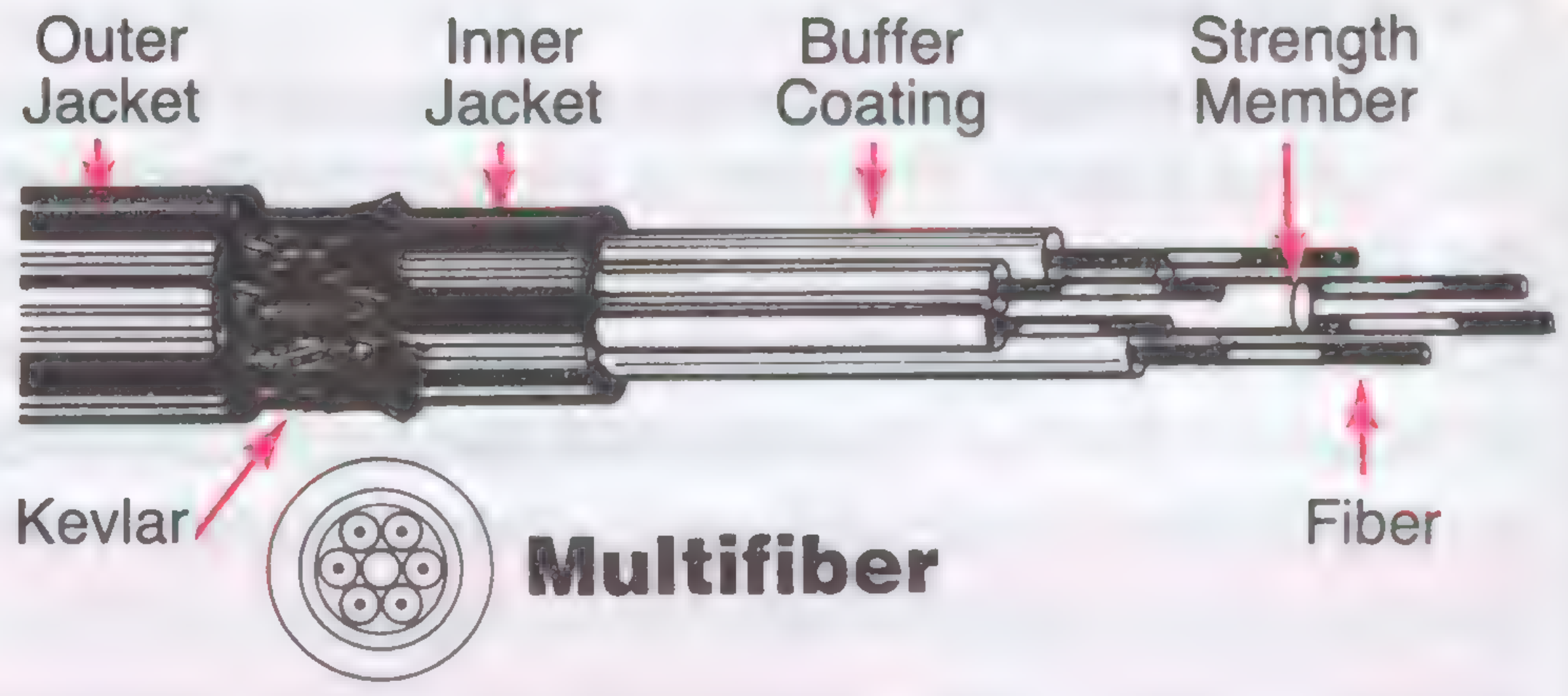
BitLite® Cables



Single Fiber



Duplex



Multifiber

The rugged BitLite construction offers outstanding cost-effective trade-offs with conventional wire and coax for industrial and manufacturing computer, instrumentation and control applications, as well as field deployment for TV electronic news gathering, geophysical and other "field type" data acquisition systems.

The simplex and duplex constructions are ideally suited for shorter transmission distances where flexibility, crush resistance and light weight are key selection criteria due to restrictions or obstructions in the cabling path.

The multifiber BitLite products have been designed to conform to the mechanical and optical specifications of DOD-C-85045, while retaining the time-proven durability of the standard commercial BitLite cables.

BitLite cables utilize the tight buffer style of construction where an additional jacket of TPE plastic is extruded directly over the optical fiber to provide added crush and impact resistance.

In single and duplex BitLite cables, the TPE buffered fiber is concentrically surrounded by a serving of Kevlar® yarn for added tensile strength and protection. An outer jacket of flame-retardant polyurethane completes the cable structure. The duplex cable is a figure 8 or zip-cord type construction for easy termination with single channel optic connectors.

The multifiber BitLite construction consists of 4, 6 or 8 TPE jacketed fibers stranded around a central stabilization member, an inner jacket of polyurethane encased in a braid of Kevlar yarns and an outer polyurethane jacket. The stabilization (strength) member is either fiberglass epoxy rod or steel, depending upon the requirement of the installation for additional strength or all dielectric construction.

Belden BitLite Cables are available in 1, 2, 4, 6, and 8 fiber configuration with either 50 or 100 micron core fibers. Nominal optical performance of these cables ranges from 6dB/km and 100 MHz-km to 5dB/km and 400 MHz-km.

BitLite cables exhibit good optical performance over an extended operating range of −40°C to 85°C (−40°F to 185°F). Typical attenuation change from −40°C to 20°C is less than 2 dB/km and the change from 20°C to 85°C is less than 1 dB/km. These values apply to a full kilometer (3280 ft.) length. Exposure to shorter lengths will result in a proportionately reduced attenuation change throughout the temperature range.

The simplex and duplex BitLite cables exhibit superior crush and impact resistance. During development BitLite cable samples were subjected to 48,000 tire impacts at an average vehicle speed of 50 miles per hour from a passenger car. No fiber breakage occurred nor was any splitting of the jacket induced. In a second test, the transmission was monitored during vehicle roll-over. A maximum transmission change of 2.50 dB was observed at the moment of impact with 100% recovery after impact. These cables have met the following additional minimum test criteria for crush, impact, flexing, and twist bend:

- Crush—1450 lbs/inch
- Impact—3.6 ft.-lbs., 12.5 mm, 10 impacts
- Flexing—1000 cycles, 2.2 lbs., 50 mm radius
- Twist/Bend—1000 cycles, 22 lbs. tensile load, 50 mm radius

The single and two fiber BitLite cables pass the U.L. VW-1 flame test. Single and two fiber BitLite cables which meet IEEE 383, 70,000 BTU/HR flame test are also available. Contact Belden for further information.

®DuPont trademark

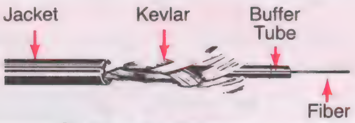
BitLite® Cables

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Band-width MHz-km	Outer Diameter		Wt. Lbs./1000'	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member	Inner Jacket	Outer Jacket
					Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application			
100 Micron/140 Micron (Core/Clad) Polyurethane Jacket														
226101	1	.28	6.0	100	.118	3.0	5.5	120	4.4	2	1	Kevlar®	—	PU
226102	2	.28	6.0	100	.118 x .244	3.0 x 6.2	11	240	8.8	2	1	Kevlar	—	PU
229934	4	.28	6.0	100	.275	7.0	32	300	50	6	4	Steel/Kevlar	PU	PU
229933	6	.28	6.0	100	.275	7.0	29	400	20	6	4	FGE*/Kevlar	PU	PU
229932	8	.28	6.0	100	.335	8.5	40	400	20	7	5	FGE*/Kevlar	PU	PU
50 Micron/125 Micron (Core/Clad) Polyurethane Jacket														
227101	1	.20	5.0	400	.118	3.0	5.5	120	4.4	2	1	Kevlar	—	PU
227102	2	.20	5.0	400	.118 x .244	3.0 x 6.2	11	240	8.8	2	1	Kevlar	—	PU
229935	4	.20	5.0	400	.275	7.0	29	400	20	6	4	FGE*/Kevlar	PU	PU
229930	6	.20	5.0	400	.275	7.0	29	400	20	6	4	FGE*/Kevlar	PU	PU
229931	8	.20	5.0	400	.335	8.5	40	400	20	7	5	FGE*/Kevlar	PU	PU

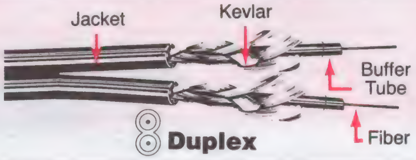
®DuPont trademark
*Fiberglass Epoxy Rod

Note: The optical performance specifications are nominal values measured at 850 nm and room temperature on the finished cable reel. The maximum attenuation under these same conditions will not be more than 1.0 dB/Km higher than nominal for any cable. The bandwidth for a 1000 meter (3280 ft.) length will not be less than the nominal value.

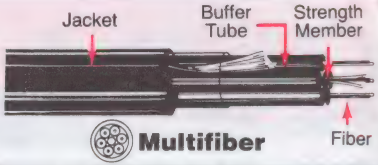
General Purpose Cables



Single Fiber



Duplex



Multifiber

Belden's general purpose cables utilize a loose buffer tube construction and are suitable for indoor installation in duct, tray or conduit. The individual fibers are enclosed in plastic buffer tubes under a closely controlled manufacturing process to maintain an optimal amount of excess fiber in each tube. This minimizes the cable's attenuation losses caused by microbending or expansion and contraction.

In the single fiber and duplex cables, the buffer tubes are covered with a Kevlar® braid, either 8 or 16 ends, which provides the load bearing support for the cable. An outer jacket of blue PVC is extruded over the braided buffer tubes to provide a durable, yet flexible cable for duct, tray or conduit installation.

The multifiber cable configuration consists of 4, 6, 8, 10, 12, or 18 optical fibers enclosed in individual color-coded buffer tubes stranded around a dielectric strength member. The strength member consists of multiple strands of Kevlar. A mylar polyester tape is wrapped around the tubed cable core assembly to maintain the alignment of the tubes and a rip cord is added to the stranded cable core to permit easy access to the individual fiber tubes for connecting and splicing. An outer jacket of blue flame retardant PVC is applied to provide environmental and installation protection for duct, tray and conduit applications.

General purpose cables are all dielectric and pass the U.L. VW-1 flame test. They exhibit stable optical performance characteristics over the entire range of −10 to 50C (+14F to 122F).

The general purpose series of cables have met the following additional test criteria for crush, impact, flexing, and twist bend:

- Crush—250 lbs./inch
- Impact—1.1 ft.-lbs., 12.5mm radius, 50 impacts
- Flexing—1000 cycles, 22 lbs., 50mm radius
- Twist/Bend—1000 cycles, 22 lbs. tensile load, 50mm radius

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Band-width MHz-km	Outer Diameter		Wt. Lbs./1000	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member	Outer Jacket
					Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application		

300 Micron/440 Micron (Core/Clad)
PVC Jacket

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Band-width MHz-km	Inch	mm	Wt. Lbs./1000	Max Load Installation	Max Load Long-Term Application	Bend Radius Installation	Bend Radius Long-Term Application	Strength Member	Outer Jacket
221001	1	.27	7.0	20	.150	3.8	8	125	6	4	2	Kevlar	PVC
221002	2	.27	7.0	20	.150 x .311	3.8 x 7.9	16	250	12	4	2	Kevlar	PVC
221004	4	.27	7.0	20	.315	8.0	30	380	38	6	4	Kevlar	PVC
221006	6	.27	7.0	20	.315	8.0	30	380	38	6	4	Kevlar	PVC
221008	8	.27	7.0	20	.394	10.0	52	380	38	7	5	Kevlar	PVC
221010	10	.27	7.0	20	.551	14.0	107	380	38	8	6	Kevlar	PVC
221012	12	.27	7.0	20	.551	14.0	107	380	38	8	6	Kevlar	PVC
221018	18	.27	7.0	20	.551	14.0	107	380	38	8	6	Kevlar	PVC

200 Micron/380 Micron (Core/Clad)
PVC Jacket

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Band-width MHz-km	Inch	mm	Wt. Lbs./1000	Max Load Installation	Max Load Long-Term Application	Bend Radius Installation	Bend Radius Long-Term Application	Strength Member	Outer Jacket
220001	1	.27	7.0	25	.150	3.8	8	125	6	4	2	Kevlar	PVC
220002	2	.27	7.0	25	.150 x .311	3.8 x 7.9	16	250	12	4	2	Kevlar	PVC
220004	4	.27	7.0	25	.315	8.0	30	380	38	6	4	Kevlar	PVC
220006	6	.27	7.0	25	.315	8.0	30	380	38	6	4	Kevlar	PVC
220008	8	.27	7.0	25	.394	10.0	52	380	38	7	5	Kevlar	PVC
220010	10	.27	7.0	25	.551	14.0	107	380	38	8	6	Kevlar	PVC
220012	12	.27	7.0	25	.551	14.0	107	380	38	8	6	Kevlar	PVC
220018	18	.27	7.0	25	.551	14.0	107	380	38	8	6	Kevlar	PVC

®DuPont trademark

Note: The optical performance specifications are nominal values measured at 850 nm and room temperature on the finished cable reel. The maximum attenuation for any of the listed cables will not be more than 1.0 dB/km higher than the nominal value. The bandwidth for a 1000 meter (3280 ft.) length will not be less than the nominal value shown for that cable. The 50, 85 and 100 micron core fibers are all glass construction. The 200 and 300 micron core fibers have a polymer cladding over a glass (silica) core.

General Purpose Cables

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Band-width MHz-km	Outer Diameter		Wt. Lbs./ 1000′	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member	Outer Jacket
					Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application		

100 Micron/140 Micron (Core/Clad)
PVC Jacket

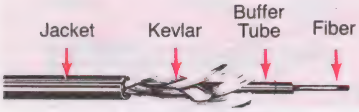
226001	1	.28	5.0	20	.150	3.8	8	250	10	4	2	Kevlar®	PVC
226021	1	.28	5.0	100	.150	3.8	8	250	10	4	2	Kevlar	PVC
226002	2	.28	5.0	20	.150 x .311	3.8 x 7.9	16	500	20	4	2	Kevlar	PVC
226022	2	.28	5.0	100	.150 x .311	3.8 x 7.9	16	500	20	4	2	Kevlar	PVC
226004	4	.28	5.0	20	.315	8.0	30	500	50	6	4	Kevlar	PVC
226024	4	.28	5.0	100	.315	8.0	30	500	50	6	4	Kevlar	PVC
226006	6	.28	5.0	20	.315	8.0	30	500	50	6	4	Kevlar	PVC
226026	6	.28	5.0	100	.315	8.0	30	500	50	6	4	Kevlar	PVC
226008	8	.28	5.0	20	.394	10.0	52	500	50	7	5	Kevlar	PVC
226028	8	.28	5.0	100	.394	10.0	52	500	50	7	5	Kevlar	PVC
226010	10	.28	5.0	20	.551	14.0	107	480	48	8	6	Kevlar	PVC
226023	10	.28	5.0	100	.551	14.0	107	480	48	8	6	Kevlar	PVC
226012	12	.28	5.0	20	.551	14.0	107	480	48	8	6	Kevlar	PVC
226025	12	.28	5.0	100	.551	14.0	107	480	48	8	6	Kevlar	PVC
226018	18	.28	5.0	20	.551	14.0	107	500	50	8	6	Kevlar	PVC
226027	18	.28	5.0	100	.551	14.0	107	500	50	8	6	Kevlar	PVC

®DuPont trademark

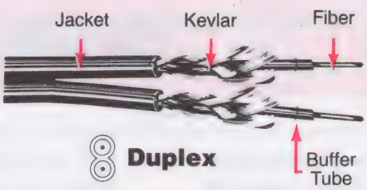
Note: This product line is designed for rugged installation in indoor or protected environments such as ducts. While short lengths of this cable type can be exposed to wide temperature range variations, other cable designs with different strength members and jackets are available for outdoor aerial and buried installations.

Note: The optical performance specifications are nominal values measured at 850 nm and room temperature on the finished cable reel. The maximum attenuation for any of the listed cables will not be more than 1.0 dB/km higher than the nominal value. The bandwidth for a 1000 meter (3280 ft.) length will not be less than the nominal value shown for that cable. The 50, 85 and 100 micron core fibers are all glass construction. The 200 and 300 micron core fibers have a polymer cladding over a glass (silica) core.

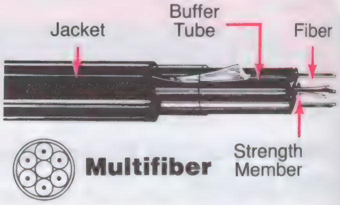
General Purpose Cables



◎ **Single Fiber**



Duplex



Multifiber

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Band-width MHz-km	Outer Diameter		Wt. Lbs./1000′	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member	Outer Jacket
					Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application		
85 Micron/125 Micron PVC Jacket													
New 228001	1	.26	4.0	200	.150	3.8	8	250	10	4	2	Kevlar®	PVC
New 228002	2	.26	4.0	200	.150 x .311	3.8 x 7.9	16	500	20	4	2	Kevlar	PVC
New 228004	4	.26	4.0	200	.315	8.0	30	500	50	6	4	Kevlar	PVC
New 228006	6	.26	4.0	200	.315	8.0	30	500	50	6	4	Kevlar	PVC
New 228008	8	.26	4.0	200	.394	10.0	52	500	50	7	5	Kevlar	PVC
New 228010	10	.26	4.0	200	.551	14.0	107	480	48	8	6	Kevlar	PVC
New 228012	12	.26	4.0	200	.551	14.0	107	480	48	8	6	Kevlar	PVC
New 228018	18	.26	4.0	200	.551	14.0	107	500	50	8	6	Kevlar	PVC

Note: This product line is designed for rugged installation in indoor or protected environments such as ducts. While short lengths of this cable type can be exposed to wide temperature range variations, other cable designs with different strength members and jackets are available for outdoor aerial and buried installations.

Note: The optical performance specifications are nominal values measured at 850 nm and room temperature on the finished cable reel. The maximum attenuation for any of the listed cables will not be more than 1.0 dB/km higher than the nominal value. The bandwidth for a 1000 meter (3280 ft.) length will not be less than the nominal value shown for that cable. The 50, 85 and 100 micron core fibers are all glass construction. The 200 and 300 micron core fibers have a polymer cladding over a glass (silica) core.

General Purpose Cables

50 Micron/125 Micron (Core/Clad)
PVC Jacket

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Band-width MHz - km	Outer Diameter		Wt. Lbs./1000′	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member	Outer Jacket
					Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application		
227001	1	.20	4.0	400	.150	3.8	8	250	10	4	2	Kevlar®	PVC
227201	1	.20	3.0	600	.150	3.8	8	250	10	4	2	Kevlar	PVC
227002	2	.20	4.0	400	.150 x .311	3.8 x 7.9	16	500	20	4	2	Kevlar	PVC
227202	2	.20	3.0	600	.150 x .311	3.8 x 7.9	16	500	20	4	2	Kevlar	PVC
227004	4	.20	4.0	400	.315	8.0	30	500	50	6	4	Kevlar	PVC
227204	4	.20	3.0	600	.315	8.0	30	500	50	6	4	Kevlar	PVC
227006	6	.20	4.0	400	.315	8.0	30	500	50	6	4	Kevlar	PVC
227206	6	.20	3.0	600	.315	8.0	30	500	50	6	4	Kevlar	PVC
227008	8	.20	4.0	400	.394	10.0	52	500	50	7	5	Kevlar	PVC
227208	8	.20	3.0	600	.394	10.0	52	500	50	7	5	Kevlar	PVC
227010	10	.20	4.0	400	.551	14.0	107	480	48	8	6	Kevlar	PVC
227210	10	.20	3.0	600	.551	14.0	107	480	48	8	6	Kevlar	PVC
227012	12	.20	4.0	400	.551	14.0	107	480	48	8	6	Kevlar	PVC
227212	12	.20	3.0	600	.551	14.0	107	480	48	8	6	Kevlar	PVC
227018	18	.20	4.0	400	.551	14.0	107	500	50	8	6	Kevlar	PVC
227218	18	.20	3.0	600	.551	14.0	107	500	50	8	6	Kevlar	PVC

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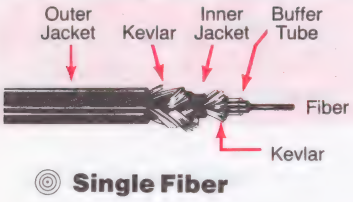
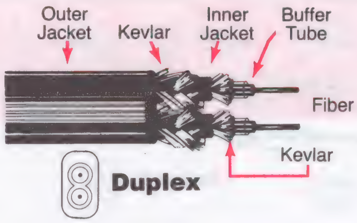
Note: This product line is designed for rugged installation in indoor or protected environments such as ducts. While short lengths of this cable type can be exposed to wide temperature range variations, other cable designs with different strength members and jackets are available for outdoor aerial and buried installations.

Note: The optical performance specifications are nominal values measured at 850 nm and room temperature on the finished cable reel. The maximum attenuation for any of the listed cables will not be more than 1.0 dB/km higher than the nominal value. The bandwidth for a 1000 meter (3280 ft.) length will not be less than the nominal value shown for that cable.

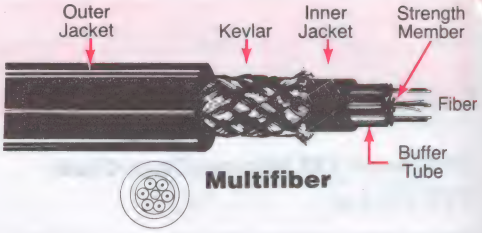
Heavy-Duty Cables



Single Fiber



Duplex



Multifiber

Belden's heavy-duty optical cables are designed to meet the additional requirements imposed in aerial, direct burial and other outdoor installations. Like the general purpose series of cables, the heavy-duty cables utilize the loose buffer tube construction coupled with additional strength members and jacketing to provide optimal stable transmission characteristics under maximum mechanical stress.

In the single fiber and duplex construction, the individual fibers are contained in plastic buffer tubes that in turn are encased in a braid of Kevlar® yarns which serves as the longitudinal tensile strength member. An internal PVC jacket is extruded over the braided fiber core and a second braid of Kevlar is applied for additional tensile strength plus added protection from crush and impact. A final extrusion of black polyethylene provides a stable outer jacket which resists degradation in outdoor or direct burial environments.

The multifiber cable configurations consist of 4, 6, 8, 10, 12, or 18 optical fibers enclosed in individual color-coded buffer tubes stranded around a fiberglass epoxy rod stabilization member. The stranded core is covered with a durable PVC inner jacket, a Kevlar braid for additional tensile strength and a black polyethylene outer jacket. For this class of cable, the polyethylene jacketing material provides excellent protection against solar radiation and can be stored outdoors indefinitely.

The single and two fiber cables exhibit stable performance over the range of −10°C to 50°C (14°F to 122°F), while the multifiber cables are designed for stable operation from −40°C to 50°C (−40°F to 122°F). They are suitable for aerial (lashed), duct or direct burial applications. Further, the all-dielectric construction is ideal for error free transmission in strong magnetic or electrical environments.

Short-term immersion in water or exposure to high humidity will not affect the cable. Long-term immersion is also possible. If the cable is cut, water may enter the buffer tubes without degradation of the fiber performance; however, freezing of the water will cause an increase in attenuation due to microbending of the fiber. Other Belden cables with filled buffer tubes are available for these applications.

For 4, 6 and 8 fiber Heavy-Duty cables, a breakout kit (part no. 229865) or factory installed breakout assembly (part no. 229739) is required for terminating with single fiber connectors. For 10, 12 and 18 fiber Heavy-Duty cables, a breakout kit (part no. 229762) or factory installed breakout assembly (part no. 229738) is required for terminating with single fiber connectors.

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Fiber Optic
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COOPER INDUSTRIES **BELDEN**

Heavy-Duty Cables

100 Micron/140 Micron (Core/Clad) Polyethylene Jacket

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Band-width MHz-km	Outer Diameter		Wt. Lbs./1000'	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member	Inner Jacket	Outer Jacket
					Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application			
226401	1	.28	5.0	20	.264	6.7	14	500	20	6	4	Kevlar®	PVC	PE
226411	1	.28	5.0	100	.264	6.7	14	500	20	6	4	Kevlar	PVC	PE
229656	2	.28	5.0	20	.244 x .394	6.2 x 10.0	40	750	30	6	4	Kevlar	PVC	PE
229602	2	.28	5.0	100	.244 x .394	6.2 x 10.0	40	750	30	6	4	Kevlar	PVC	PE
226414	4	.28	5.0	100	.433	11.0	60	560	53	7	5	FGE*/Kevlar	PVC	PE
226416	6	.28	5.0	100	.433	11.0	60	560	53	7	5	FGE*/Kevlar	PVC	PE
226418	8	.28	5.0	100	.551	14.0	94	650	53	8	6	FGE*/Kevlar	PVC	PE
226413	10	.28	5.0	100	.670	17.0	143	520	53	10	8	FGE*/Kevlar	PVC	PE
226415	12	.28	5.0	100	.670	17.0	143	520	53	10	8	FGE*/Kevlar	PVC	PE
226417	18	.28	5.0	100	.670	17.0	143	520	53	10	8	FGE*/Kevlar	PVC	PE

85 Micron/125 Micron (Core/Clad) Polyethylene Jacket

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Band-width MHz-km	Outer Diameter		Wt. Lbs./1000'	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member	Inner Jacket	Outer Jacket
					Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application			
New 228401	1	.26	4.0	200	.264	6.7	14	500	20	6	4	Kevlar	PVC	PE
New 229601	2	.26	4.0	200	.244 x .394	6.2 x 10.0	40	750	30	6	4	Kevlar	PVC	PE
New 228414	4	.26	4.0	200	.433	11.0	60	560	53	7	5	FGE*/Kevlar	PVC	PE
New 228416	6	.26	4.0	200	.433	11.0	60	560	53	7	5	FGE*/Kevlar	PVC	PE
New 228418	8	.26	4.0	200	.551	14.0	94	650	53	8	6	FGE*/Kevlar	PVC	PE
New 228413	10	.26	4.0	200	.670	17.0	143	520	53	10	8	FGE*/Kevlar	PVC	PE
New 228415	12	.26	4.0	200	.670	17.0	143	520	53	10	8	FGE*/Kevlar	PVC	PE
New 228417	18	.26	4.0	200	.670	17.0	143	520	53	10	8	FGE*/Kevlar	PVC	PE

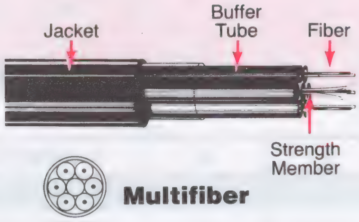
50 Micron/125 Micron (Core/Clad) Polyethylene Jacket

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Band-width MHz-km	Outer Diameter		Wt. Lbs./1000'	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member	Inner Jacket	Outer Jacket
					Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application			
227401	1	.20	4.0	400	.264	6.7	14	500	20	6	4	Kevlar	PVC	PE
227411	1	.20	3.0	600	.264	6.7	14	500	20	6	4	Kevlar	PVC	PE
229843	2	.20	4.0	400	.244 x .394	6.2 x 10.0	40	750	30	6	4	Kevlar	PVC	PE
229657	2	.20	3.0	600	.244 x .394	6.2 x 10.0	40	750	30	6	4	Kevlar	PVC	PE
227414	4	.20	3.0	600	.433	11.0	60	560	53	7	5	FGE*/Kevlar	PVC	PE
227416	6	.20	3.0	600	.433	11.0	60	560	53	7	5	FGE*/Kevlar	PVC	PE
227418	8	.20	3.0	600	.551	14.0	94	650	53	8	6	FGE*/Kevlar	PVC	PE
227413	10	.20	3.0	600	.670	17.0	143	520	53	10	8	FGE*/Kevlar	PVC	PE
227415	12	.20	3.0	600	.670	17.0	143	520	53	10	8	FGE*/Kevlar	PVC	PE
227417	18	.20	3.0	600	.670	17.0	143	520	53	10	8	FGE*/Kevlar	PVC	PE

®DuPont trademark
*Fiberglass Epoxy Rod

Note: The optical performance specifications are nominal values measured at 850 nm and room temperature on the finished cable reel. The maximum attenuation for any of the listed cables will not be more than 1.0 dB/km higher than the nominal value. The bandwidth for a 1000 meter (3280 ft.) length will not be less than the nominal value shown for that cable.

Telecommunication Cables



Multifiber

The telecommunication series of multi-conductor fiber optic cables incorporates features of both the general purpose and heavy-duty constructions. In all of these products, the individual fibers are enclosed in plastic buffer tubes under a closely controlled manufacturing process to maintain an optimal amount of excess fiber in each tube. This minimizes the cable's attenuation losses due to microbending caused by expansion and contraction, induced in outdoor or combination indoor/outdoor operating environments.

The basic configuration of the telecommunication series consists of 4, 6, 8, 10, or 12 optical fibers enclosed in individual color-coded buffer tubes stranded around a central strength member. A mylar polyester tape is wrapped around the tubed cable core assembly to maintain the alignment of the tubes and an outer jacket is extruded over the core assembly to provide environmental and installation protection. Two jacket materials are offered: black polyethylene for outdoor installation or black flame-retardant PVC for the combination indoor/outdoor installation. Two strength members are offered: steel or fiberglass epoxy rod.

These cables are designed for both outdoor and combination outdoor/indoor installation. Cables with the steel strength member exhibit stable operation from −40°C to 80°C (−40°F to 176°F). Cables with the fiberglass epoxy rod strength member exhibit stable operation from −40°C to 50°C (−40°F to 122°F).

The all-dielectric version using a fiberglass epoxy rod strength member and black PVC jacket is ideally suited for vertical installation on broadcast transmission towers. This construction also passes the U.L. VW-1 flame test.

100 Micron/140 Micron (Core/Clad) Polyethylene Jacket

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Band-width MHz - km	Outer Diameter		Wt. Lbs./1000'	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member	Outer Jacket
					Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application		
226614	4	.28	5.0	100	.315	8	31	370	63	6	4	Steel	PE
226616	6	.28	5.0	100	.315	8	31	370	63	6	4	Steel	PE
226618	8	.28	5.0	100	.394	10	37	370	63	7	5	Steel	PE
226613	10	.28	5.0	100	.551	14	110	1300	223	9	7	Steel	PE
226615	12	.28	5.0	100	.551	14	110	1300	223	9	7	Steel	PE

100 Micron/140 Micron (Core/Clad) PVC Jacket

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Band-width MHz - km	Outer Diameter		Wt. Lbs./1000'	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member	Outer Jacket
					Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application		
226714	4	.28	5.0	100	.315	8	35	130	14	6	4	FGE*	PVC
226716	6	.28	5.0	100	.315	8	35	130	14	6	4	FGE*	PVC
226718	8	.28	5.0	100	.394	10	54	150	14	7	5	FGE*	PVC
226713	10	.28	5.0	100	.551	14	110	130	14	9	7	FGE*	PVC
226715	12	.28	5.0	100	.551	14	110	130	14	9	7	FGE*	PVC

*Fiberglass Epoxy Rod

Note: The optical performance represents the nominal values measured at 850 nm. The maximum attenuation will not be more than 1.0 dB/km higher than nominal for any cable. The bandwidth for a 1000 meter (3280 ft.) length will not be less than the nominal value.

Telecommunication Cables

85 Micron/125 Micron (Core/Clad)
Polyethylene Jacket

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Bandwidth MHz-km	Outer Diameter		Wt. Lbs./1000′	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member	Outer Jacket
					Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application		
New 228614	4	.26	4	200	.315	8	31	370	63	6	4	Steel	PE
New 228616	6	.26	4	200	.315	8	31	370	63	6	4	Steel	PE
New 228618	8	.26	4	200	.394	10	37	370	63	7	5	Steel	PE
New 228613	10	.26	4	200	.551	14	110	1300	223	9	7	Steel	PE
New 228615	12	.26	4	200	.551	14	110	1300	223	9	7	Steel	PE

85 Micron/125 Micron (Core/Clad)
PVC Jacket

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Bandwidth MHz-km	Outer Diameter		Wt. Lbs./1000′	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member	Outer Jacket
					Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application		
New 228714	4	.26	4	200	.315	8	35	130	14	6	4	FGE*	PVC
New 228716	6	.26	4	200	.315	8	35	130	14	6	4	FGE*	PVC
New 228718	8	.26	4	200	.394	10	54	150	14	7	5	FGE*	PVC
New 228713	10	.26	4	200	.551	14	110	130	14	9	7	FGE*	PVC
New 228715	12	.26	4	200	.551	14	110	130	14	9	7	FGE*	PVC

50 Micron/125 Micron (Core/Clad)
Polyethylene Jacket

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Bandwidth MHz-km	Outer Diameter		Wt. Lbs./1000′	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member	Outer Jacket
					Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application		
227614	4	.20	3.0	600	.315	8	31	370	63	6	4	Steel	PE
227616	6	.20	3.0	600	.315	8	31	370	63	6	4	Steel	PE
227618	8	.20	3.0	600	.394	10	37	370	63	7	5	Steel	PE
227613	10	.20	3.0	600	.551	14	110	1300	223	9	7	Steel	PE
227615	12	.20	3.0	600	.551	14	110	1300	223	9	7	Steel	PE

50 Micron/125 Micron (Core/Clad)
PVC Jacket

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Bandwidth MHz-km	Outer Diameter		Wt. Lbs./1000′	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member	Outer Jacket
					Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application		
227714	4	.20	3.0	600	.315	8	35	130	14	6	4	FGE*	PVC
227716	6	.20	3.0	600	.315	8	35	130	14	6	4	FGE*	PVC
227718	8	.20	3.0	600	.394	10	54	150	14	7	5	FGE*	PVC
227713	10	.20	3.0	600	.551	14	110	130	14	9	7	FGE*	PVC
227715	12	.20	3.0	600	.551	14	110	130	14	9	7	FGE*	PVC

*Fiberglass Epoxy Rod

Note: The optical performance specifications are nominal values measured at 850 nm and room temperature on the finished cable reel. The maximum attenuation for any of the listed cables will not be more than 1.0 dB/km higher than the nominal value. The bandwidth for a 1000 meter (3280 ft.) length will not be less than the nominal value shown for that cable.

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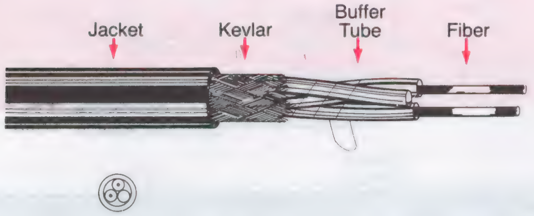
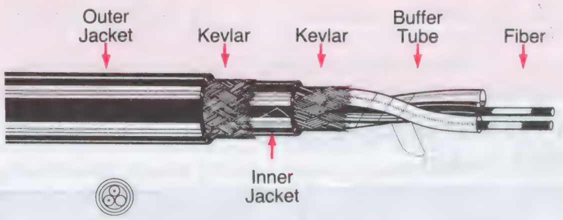
Multipurpose Cables





The multipurpose high performance cables are designed for combination indoor and outdoor applications, especially where a broad operating temperature range, −40°C to 80°C (−40°F to 176°F), is required. The cables are all dielectric and are available with two different jacket constructions for use in aerial direct burial, duct or conduit installation.

The basic cable configuration consists of two optical fibers enclosed in individual color-coded buffer tubes stranded with a third empty tube or filler member. A mylar polyester tape is wrapped around the cabled core—which is then encased by a braid of Kevlar[◦] yarn. The Kevlar braid serves as the longitudinal strength member for the cable.

Two different jacket constructions are offered, depending upon installation requirements.

226712, 228712 and 227712 have a single jacket of black flame-retardant PVC which meets the U.L. VW-1 flame test for duct, tray and conduit installations.

226412, 228412 and 227412 have an inner PVC jacket, a second Kevlar[◦] braid and an outside jacket of black polyethylene. This cable is well suited for combination indoor/outdoor applications where aerial (lashed), direct burial and duct installation will be required.

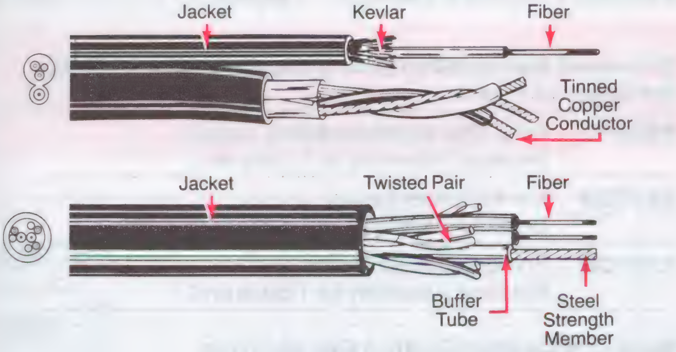
For terminating Multipurpose cables with single fiber connectors, a breakout kit (part no. 229615) or factory-installed breakout assembly (part no. 229597) is required.

Product Number	No. of Fibers	Num. Aper.	Atten. dB/km	Band-width MHz-km	Outer Diameter		Wt. Lbs./1000′	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member	Inner Jacket	Outer Jacket
					Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application			
100 Micron/140 Micron (Core/Clad)														
226412	2	.28	5.0	100	.405	10.3	50	700	80	7	5	Kevlar	PVC	PE
226712	2	.28	5.0	100	.287	7.3	27	200	40	6	4	Kevlar	—	PVC
85 Micron/125 Micron (Core/Clad)														
New 228412	2	.26	4.0	200	.405	10.3	50	700	80	7	5	Kevlar	PVC	PE
New 228712	2	.26	4.0	200	.287	7.3	27	200	40	6	4	Kevlar	—	PVC
50 Micron/125 Micron (Core/Clad)														
227412	2	.20	3.0	600	.405	10.3	50	700	80	7	5	Kevlar	PVC	PE
227712	2	.20	3.0	600	.287	7.3	27	200	40	6	4	Kevlar	—	PVC

[◦] DuPont trademark

Note: The optical performance specifications are nominal values measured at 850 nm and room temperature on the finished cable reel. The maximum attenuation for any of the listed cables will not be more than 1.0 dB/km higher than nominal value. The bandwidth for a 1000 meter (3280 ft.) length will not be less than the nominal value shown for that cable.

Hybrid Cables



Belden 229965 and 229596 are hybrid wire and optical fiber cables designed for computer terminal, video transmission, instrumentation, or process monitoring applications, where the inherent security and higher capacity of optical fiber can augment control of power circuits handled by shielded twisted pairs in a single compact cable structure.

The cables are offered with one or two 100 micron core optical fibers with a nominal performance of 5 or 6 dB/km and 100 Mhz-km at 850 nm.

229965 is composed of one optical fiber and two 20 AWG tinned copper conductors with one 20 AWG tinned copper drain wire. The copper conductors are enclosed in a polyester foil shield. The optical fiber is a tight buffer style construction and is surrounded by Kevlar◑ yarn for additional strength. Both optic and metallic conductors have a common PVC outer jacket which is arranged in a "figure eight" so the optic and metallic portions can be easily separated for connectorization. The flame-retardant PVC jacket also provides excellent abrasion and crush resistance. In addition, this cable meets the flame retardancy of U.L. VW-1. Operating temperature range: −10° to 50°C (+14° to 122°F).

229596 is composed of two optical fibers each in a loose buffer tube and three shielded twisted pairs, with a jacketed steel strength member. Fillers are added to the structure to maintain symmetry for the round construction. Black polyethylene outer jacket is applied over the cable core for installation both indoors in conduit and outdoors. Operating temperature range: −40° to 50°C (−40° to 122°F).

Product Number	No. of Pairs	No. of Fibers	Num. Aper.	Atten. dB/km	Band-width MHz·km	Outer Diameter		Wt. Lbs./1000'	Maximum Recommended Load—Lbs.		Minimum Bend Radius Inches		Strength Member
						Inch	mm		Installation	Long-Term Application	Installation	Long-Term Application	
100 Micron/140 Micron (Core/Clad) **20 Gage** Stranded Conductors (7x28½)⌿ **PVC Jacket**													
New 229965	1	1	.28	6.0	100	.177◑ x .342	4.5⊖ x 8.7	32	125	6	6	4	Kevlar
100 Micron/140 Micron (Core/Clad) **24 Gage** Stranded Conductors (7x32)≠ **Polyethylene Jacket**													
New 229596	3	2	.28	5.0	100	.445	11.3	50	450	63	7	5	Steel

⌿Tinned copper, PVC insulation, conductors cabled with Beldfoil® type shield and #20 AWG (10x30) drain wire, PVC jacket. Insulation thickness .015 (.4 mm).
≠Tinned copper, polyethylene insulated, twisted pairs, individual Beldfoil aluminum-polyester shield, 24 AWG stranded tinned copper drain wire. Insulation thickness .015 (.4 mm).
⊖OD on fiber side is .150 (3.8 mm).
◑DuPont trademark

Note: The optical performance represents the nominal values measured at 850 nm. The maximum attenuation will not be more than 1.0 dB/km higher than nominal for any cable. The bandwidth for a 1000 meter (3280 ft.) length will not be less than the nominal value.

Accessories

Break Out Kit

Cable breakout kits are available for **multifiber** and **multipurpose** cables. These permit the separation and protection of individual fiber elements so that they can be routed to individual equipment locations. The kits contain all the materials necessary for installation on 2 to 18 fiber cables. They effectively create a single fiber cable with integral strength member for each fiber in the multifiber cable. Individual connectors can then be attached to each of the breakout kit's subcables.

Cable Assemblies

Customer specified lengths of connectorized general purpose fiber optic cable with AMP Optimate© Simplex or SMA-style connectors such as Amphenol[□] Series 905/906 are available on a custom-order basis. Both single and multifiber cables can be connectorized with these and other connector styles. The cable assemblies are ready for direct connection to their mating components and feature 100% optical attenuation and physical testing. The maximum insertion loss is 2.0 dB per assembly for cable assemblies terminated with SMA or AMP Simplex connectors on both ends. Cable attenuation is not included in the insertion loss value.

Breakout Kits (Not Including Connectors)

229615	For 2-fiber **Multipurpose** cables. Breakout for 1 cable end.
229865	For 4 to 8-fiber cables. Breakout for 1 cable end.
229762	For 10 to 18-fiber cables. Breakout for 1 cable end.

Breakout Assemblies (Not Including Connectors) Installed at Factory

229597	For 2-fiber **Multipurpose** cables. Breakout Assembly for 1 cable end.
229739	For 4 to 8-fiber cables. Breakout Assembly for 1 cable end.
229738	For 10 to 18-fiber cables. Breakout Assembly for 1 cable end.

Belden's Custom Design Capabilities

Whether your application calls for singlemode fiber, second window performance, installation in conduit, direct burial, field deployable, aerial suspension, or something entirely different, you'll find the help you need by calling Belden's Product Engineering Group 317/983-5200.

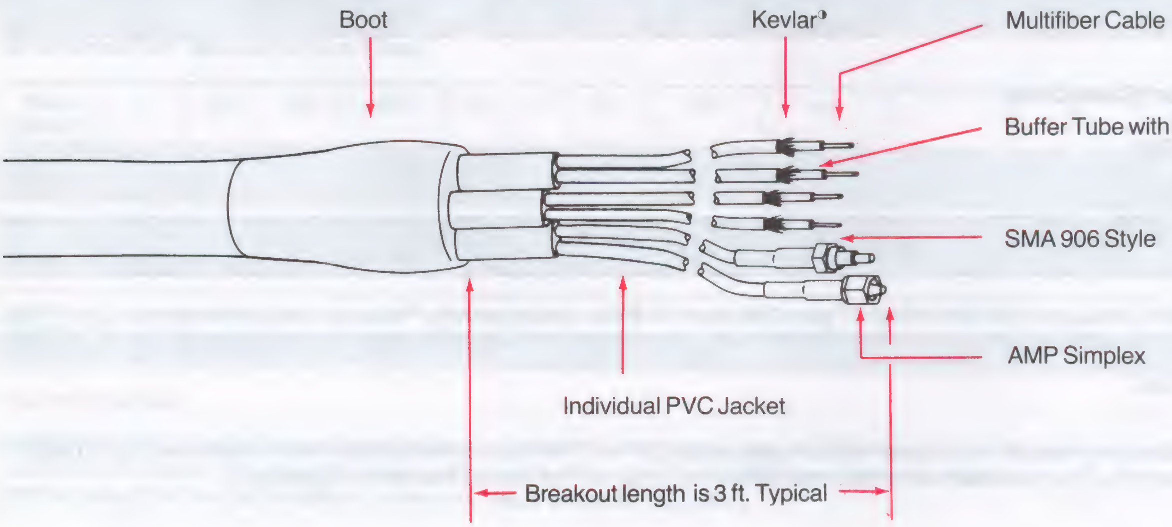
Belden's Fiber Optic Literature Kit

It contains everything you need to define and detail the requirements of your application, including:

- Product technical information
- Termination procedures
- Designer's guide

For more information or to request a Fiber Optic Literature Kit, just write or call your local Regional Belden Sales Office listed on the back cover of this catalog.

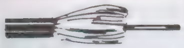
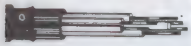
Installed Breakout Kit (Connectors Not Included)



©AMP Inc. trademark
[□]Bunker Ramo trademark
[◑]DuPont trademark

Technical Data

Fiber Optic Cables—Construction Features and Selection Guide

Description	No. of Fibers	Type	Page	Jacket Structure	Strength Member	Flame Retardancy	All Dielectric	Temp. Range °C	Installation					
									Indoor		Outdoor			Field Deployable
									Tray	Conduit	Duct	Burial	Aerial	
BitLite®  **Single Fiber** **Duplex**  **Multifiber**	1, 2	BitLite	159	PU	Kevlar◑	VW-1	Yes	−40 to 85	G					F
	4, 6, 8	BitLite	159	PU/Braid/ PU**	FGE*⊗/ Kevlar	None	Yes⊗	−40 to 85		F	F			E
General Purpose **Single Fiber** **Duplex** **Multifiber**	1, 2, 4, 6, 8, 10, 12, 18	General Purpose	160, 161, 162, 163	PVC	Kevlar	VW-1	Yes	−10 to 50	E	E				
Multi-Purpose **Duplex**	2	Multi-Purpose	168	PVC	Kevlar	VW-1	Yes	−40 to 80	E	E	E		E	
	2	Multi-Purpose	168	PVC/Braid/ PE***	Kevlar	None	Yes	−40 to 80		G	E	E	E	
Heavy Duty **Single Fiber** **Duplex** **Multifiber**	1, 2	Heavy Duty	165	PVC/Braid/ PE	Kevlar	None	Yes	−10 to 50		G		E		
	4, 6, 8, 10, 12, 18	Heavy Duty	165	PVC/Braid/ PE	FGE* Rod	None	Yes	−40 to 50		G	G	E	E	
Telecon **Multifiber**	4, 6, 8, 10, 12, 18	Telecon	166, 167	PVC	FGE* Rod	VW-1	Yes	−40 to 50	G	G	E		E	
	4, 6, 8, 10, 12, 18	Telecon	166, 167	PE	Steel	None	No	−40 to 80		G	E		E	
Hybrid **Single or Multifiber with Twisted Pair(s)**	1	Hybrid	169	PVC	Kevlar	VW-1	No	−10 to 50	E	G				
	2	Hybrid	169	PE	Steel	None	No	−40 to 50		G			G	

◑DuPont trademark
*Fiberglass Epoxy Rod
⊗Steel strength member substituted for FGE on 229934
**Polyurethane inner jacket, Kevlar braid, Polyurethane outer jacket.
***PVC inner jacket, Kevlar braid, Polyethylene outer jacket.

E = Excellent G = Good F = Fair
PVC = Polyvinyl Chloride PE = Polyethylene PU = Polyurethane

Cable Finder Chart

Type	Cable Construction				Optical Fiber Specifications						
	No. of Fibers	Materials of Construction			Fiber Type						
					Graded Index. Multimode Glass					Step Index. PCS	
					Core Cladding Diameter Microns						
					50/125		85/125	100/140		200/380	300/440
		Strength Member	Outer Jacket	Inner Jacket	Nominal Optical Performance. Attenuation (dB -km)/ Bandwidth (MHz-km) @ 850NM						
					4/400	3/600	4/200	5/20	5/100	7/25	7/20
General Purpose	1	Kevlar®	PVC		227001	227201	228001	226001	226021	220001	221001
Heavy Duty	1	Kevlar	PE	PVC	227401	227411	228401	226401	226411		
General Purpose	2	Kevlar	PVC		227002	227202	228002	226002	226022	220002	221002
Heavy Duty	2	Kevlar	PE	PVC	229843	229657	229601	229656	229602		
Multipurpose	2	Kevlar	PVC			227712	228712		226712		
Multipurpose	2	Kevlar	PE	PVC		227412	228412		226412		
General Purpose	4	Kevlar	PVC		227004	227204	228004	226004	226024	220004	221004
Heavy Duty	4	FGE*/Kevlar	PE	PVC		227414	228414		226414		
Telecommunication	4	Steel	PE			227614	228614		226614		
Telecommunication	4	FGE*	PVC			227714	228714		226714		
General Purpose	6	Kevlar	PVC		227006	227206	228006	226006	226026	220006	221006
Heavy Duty	6	FGE*/Kevlar	PE	PVC		227416	228416		226416		
Telecommunication	6	Steel	PE			227616	228616		226616		
Telecommunication	6	FGE*	PVC			227716	228716		226716		
General Purpose	8	Kevlar	PVC		227008	227208	228008	226008	226028	220008	221008
Heavy Duty	8	FGE*/Kevlar	PE	PVC		227418	228418		226418		
Telecommunication	8	Steel	PE			227618	228618		226618		
Telecommunication	8	FGE*	PVC			227718	228718		226718		
General Purpose	10	Kevlar	PVC		227010	227210	228010	226010	226023	220010	221010
Heavy Duty	10	FGE*/Kevlar	PE	PVC		227413	228413		226413		
Telecommunication	10	Steel	PE			227613	228613		226613		
Telecommunication	10	FGE*	PVC			227713	228713		226713		
General Purpose	12	Kevlar	PVC		227012	227212	228012	226012	226025	220012	221012
Heavy Duty	12	FGE*/Kevlar	PE	PVC		227415	228415		226415		
Telecommunication	12	Steel	PE			227615	228615		226615		
Telecommunication	12	FGE*	PVC			227715	228715		226715		
General Purpose	18	Kevlar	PVC		227018	227218	228018	226018	226027	220018	221018
Heavy Duty	18	FGE*/Kevlar	PE	PVC		227417	228417		226417		

					5/400				6/100		
BitLite	1	Kevlar	PU		227101				226101		
BitLite	2	Kevlar	PU		227102				226102		
BitLite	4	Kevlar	PU	PU	229935				229934		
BitLite	6	Kevlar	PU	PU	229930				229933		
BitLite	8	Kevlar	PU	PU	229931				229932		

®DuPont trademark
*FGE Denotes Fiberglass Epoxy Rod

Special Application Cables

This section features cables which were designed to meet specific application requirements.

The cables in this section are organized as follows:

	Page(s)
1. Power Limited Fire Protective Signaling Circuit Cables—Subject 1424	174 & 175
2. Power Limited Tray Cables—Subject 13	176 – 180
3. Tray Cables—Subject 1277	181
4. TV Camera and CCTV Cables	182 – 185
5. Local Area Network Cables	187
6. Special Application Computer Cables	188
7. Special Audio, Communications and Instrumentation Cables	189 – 192
8. Thermocouple Extension Wire	193
9. MIL-W-16878/17 (Type B) Conductors, Shielded and Jacketed	194 & 195

Custom Design Center

If you have a new or unusual application or you cannot find cable in this section which meets your technical requirements, contact Belden's Product Engineering Group. Phone 317/983-5200.

Packaging

Belden's unique UNREEL® cable dispenser is available for many of the cables listed in this section. The letter "U" before the specified put-up length denotes UNREEL packaging.

Power Limited 105C-300V Fire Protective Signaling Circuit Cables Subject 1424 (NEC Articles 760 and 725)

(UL) LISTED

Power limited fire protective signaling circuit cable for use in accordance with NEC article 760 power limited circuits. Also suitable for use as a power limited circuit cable for use in accordance with NEC article 725 class 2 or 3 circuits, but these cables are marked as **suitable for appropriate tray cable installations.**

All cables in this section pass the U.L. 70,000 BTU flame test which is comparable to IEEE 383 flame test. All cables in this section are listed by the California State Fire Marshall listing service. Component Recognized AWM 2464, 80C—300 V.

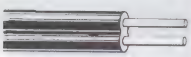
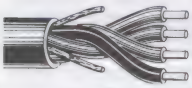
Fire Alarm and Tray Cables

22 Gage
Solid Tinned Conductors

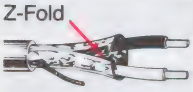
Product Description
Tinned copper, PVC insulated, conductors cabled, Black PVC jacket. Color code chart No. 1, Technical Information Section.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths ft	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm
	9576†°	6	U-500 U-1000	U-152.4 U-304.8	17.9 34.9	.013	.33	.039	.99	.234	5.94
	9577†°	9	U-500 U-1000	U-152.4 U-304.8	23.6 46.1	.013	.33	.039	.99	.267	6.78
(UL) LISTED **E64959** ЯU 2464	**9584**†°	12	500 1000	152.4 304.8	31.3 63.8	.013	.33	.043	1.09	.302	7.67

19 Gage
Solid Conductors

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths ft	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm
	**9596**†° (UL) LISTED **E64959**	2	U-500 500 1000	U-152.4 152.4 304.8	9.3 9.0 18.2	.030	.76	—	—	.101 x .191	2.56 x 4.85
						Product Description: One conductor tinned copper, one conductor bare, parallel, red PVC insulation.					
	**9597**†°	4	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	20.8 21.6 40.7 41.7	.016	.41	.040	1.02	.248	6.29
						Product Description: Bare copper, PVC insulated, conductors cabled, red PVC jacket. Color code: 1st Black, 2nd Red, 3rd Yellow, 4th Blue.					
(UL) LISTED **E64959** ЯU 2464	**9598**†°	6	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	29.5 30.3 58.1 62.1	.016	.41	.042	1.07	.290	7.36
						Product Description: Bare copper, PVC insulated, conductors cabled, red PVC jacket. Color code: 1st Black, 2nd Red, 3rd Yellow, 4th Blue, 5th Brown, 6th Orange.					

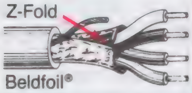
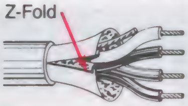
18 Gage
Solid Conductors

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths ft	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm
	9571†° (UL) LISTED **E64959**	2	U-500 U-1000	U-152.4 U-304.8	14.4 28.2	.017	.43	.037	.94	.244	6.20
						Product Description: Solid bare copper, PVC insulated, conductors cabled, red PVC jacket. Color code: Black, Red.					
 Beldfoil® 100% Shield Coverage	**9574**†° (UL) LISTED **E64959**	2	U-500 U-1000	U-152.4 U-304.8	16.2 31.3	.017	.43	.037	.94	.228	5.79
						Product Description: Solid bare copper, PVC insulated, conductors cabled with Beldfoil aluminum-polyester shield and #22 AWG stranded tinned drain wire, red PVC jacket. Color code: Black, Red.					

†Passes the VW-1 Vertical Wire Flame Test.
°Passes the U.L. 70,000 BTU Flame Test and Is Listed by the California Fire Marshall.

Power Limited 105C-300V Fire Protective Signaling Circuit Cables (cont'd.) (UL) LISTED Subject 1424 (NEC Articles 760 and 725)

Fire Alarm and Tray Cables

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm
18 Gage(cont'd.) Solid Conductors											
 Beldfoil® 100% Shield Coverage	**9578**†° (UL) LISTED **E64959** ЯU 2464	4	U-500 U-1000	U-152.4 U-304.8	25.4 52.8	.017	.43	.037	.94	.263	6.68
						Product Description: Solid bare copper, PVC insulated, conductors cabled with Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, red PVC jacket. Color code: Black, Red, Yellow, Lt. Blue.					
16 Gage Solid Conductors											
	9572†° (UL) LISTED **E64959** ЯU 2464	2	U-500 U-1000	U-152.4 U-304.8	19.5 38.0	.017	.43	.037	.94	.250	6.34
						Product Description: Solid bare copper, PVC insulated, conductors cabled, red PVC jacket.					
 Beldfoil 100% Shield Coverage	**9575**†° (UL) LISTED **E64959**	2	U-500 U-1000	U-152.4 U-304.8	21.3 41.5	.017	.43	.037	.94	.254	6.45
						Product Description: Solid bare copper, PVC insulated, conductors cabled with Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, red PVC jacket. Color code: Black, Red.					
	**9579**†° (UL) LISTED **E64959** ЯU 2464	4	500 1000	152.4 304.8	35.9 74.7	.017	.43	.042	1.07	.301	7.65
						Product Description: Solid bare copper, PVC insulated, conductors cabled with Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, red PVC jacket. Color code: Black, Red, Yellow, Lt. Blue.					
14 Gage Solid Conductors											
	9580†° (UL) LISTED **E64959**	2	500 1000	152.4 304.8	28.6 60.1	.022	.56	.042	1.07	.312	7.92
						Product Description: Solid bare copper, PVC insulated conductors cabled, red PVC jacket. Color code: Red, Black.					
 Beldfoil 100% Shield Coverage	**9581**†° (UL) LISTED **E64959**	2	U-500 1000	U-152.4 304.8	34.8 72.6	.022	.56	.042	1.07	.316	8.03
						Product Description: Solid bare copper, PVC insulated, conductors cabled with Beldfoil aluminum-polyester shield, 16 AWG stranded tinned copper drain wire, red PVC jacket. Color code: Red, Black.					
12 Gage Solid Conductors											
	9582†° (UL) LISTED **E64959**	2	500 1000	152.4 304.8	43.6 86.7	.022	.56	.042	1.07	.346	8.78
						Product Description: Solid bare copper, PVC insulated, conductors cabled, red PVC jacket. Color code: Black, Red.					
 Beldfoil 100% Shield Coverage	**9583**†° (UL) LISTED **E64959**	2	500 1000	152.4 304.8	49.0 97.4	.022	.56	.042	1.07	.350	8.89
						Product Description: Solid bare copper, PVC insulated, conductors cabled with Beldfoil aluminum-polyester shield, 16 AWG stranded tinned copper drain wire, red PVC jacket. Color code: Black, Red.					

†Passes the VW-1 Vertical Wire Flame Test.
°Passes the U.L. 70,000 BTU Flame Test and Is Listed by the California Fire Marshall.

Power Limited 105C-300V Tray Cables (UL) LISTED
U.L. Subject 13 (NEC Article 725)

Tri-rated cable. Power limited tray cable, U.L. subject 13, 105C-300V. Appliance Wiring Material style 2464, 80C-300V. Certified to CSA standards as Appliance Wiring Material. Meets Article 725 of the NEC, Class 2 and 3 requirements. Passes the U.L. 70,000 BTU flame test which is comparable to the IEEE 383 Flame Test. **Sunlight Resistant Jacket.**

Two-Conductor Unshielded Cables

Product Description
Tinned copper, PVC insulated, conductors cabled, chrome sunlight-resistant PVC jacket. Color code: Black, Red.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft	m			Inch	mm	Inch	mm	Inch	mm
 (UL) LISTED **E34972** 300V and AWM 2464 Appliance Wiring Material	**9407**†°	U-500 U-1000	U-152.4 U-304.5	10.2 19.3	22 (7x30)	.016	.41	.038	.97	.200	5.08
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9408†°	100 U-500 U-1000	30.5 U-152.4 U-304.5	2.6 11.8 22.6	20 (10x30)	.016	.41	.038	.97	.214	5.44
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9409†°	100 U-500 U-1000	30.5 U-152.4 U-304.5	3.3 14.4 27.8	18 (16x30)	.016	.41	.038	.97	.230	5.84
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9410†°	100 U-500 U-1000	30.5 U-152.4 U-304.5	4.3 19.3 38.0	16 (26x30)	.016	.41	.038	.97	.260	6.60
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9411†°	100 U-500 1000	30.5 U-152.4 304.5	6.4 29.7 69.9	14 (41x30)	.022	.56	.043	1.09	.324	8.23
						U.L. LISTED as suitable for Class 2 and 3 circuits.					
	9412†°	100 500 1000	30.5 152.4 304.5	9.6 50.5 97.1	12 (65x30)	.032	.81	.052	1.32	.424	10.77
						U.L. LISTED as suitable for Class 2 and 3 circuits.					

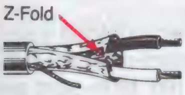
Two-Conductor Shielded Cables

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft	m			Inch	mm	Inch	mm	Inch	mm
 Beldfoil® 100% Shield Coverage (UL) LISTED **E34972** 300V and AWM 2464 Appliance Wiring Material	**9322**†°	100 U-500 U-1000	30.5 U-152.4 U-304.5	2.6 11.4 22.0	22 (7x30)	.016	.41	.038	.97	.202	5.13
						Product Description: Tinned copper, PVC insulated, conductors cabled with Beldfoil tape shield, 22 AWG stranded tinned copper drain wire, chrome sunlight-resistant PVC jacket. Color code: Black, Red. U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9320†°	100 U-500 U-1000	30.5 U-152.4 U-304.5	3.0 13.1 25.4	20 (10x30)	.016	.41	.038	.97	.216	5.49
						Product Description: Tinned copper, PVC insulated, conductors cabled with Beldfoil tape shield, 22 AWG stranded tinned copper drain wire, chrome sunlight-resistant PVC jacket. Color code: Black, Red. U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9318†°	100 U-500 U-1000	30.5 U-152.4 U-304.8	3.8 16.8 32.8	18 (16x30)	.016	.41	.038	.97	.236	5.99
						Product Description: Tinned copper, PVC insulated, conductors cabled with Beldfoil tape shield, 20 AWG stranded tinned copper drain wire, chrome sunlight-resistant PVC jacket. Color code: Black, Red. U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9316†°	100 U-500 U-1000	30.5 U-152.4 U-304.5	4.9 22.6 44.2	16 (26x30)	.016	.41	.038	.97	.262	6.65
						Product Description: Tinned copper, PVC insulated, conductors cabled with Beldfoil tape shield, 18 AWG stranded tinned copper drain wire, chrome sunlight-resistant PVC jacket. Color code: Black, Red. U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					

†Passes the VW-1 Vertical Wire Flame Test.
°Passes the U.L. 70,000 BTU Flame Test.

Power Limited 105C-300V Tray Cables Ⓤ LISTED Ⓒ U.L. Subject 13 (NEC Article 725)

Two-Conductor Shielded Cables

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft.	m			Inch	mm	Inch	mm	Inch	mm
 Beldfoil® 100% Shield Coverage Ⓤ LISTED **E34972** 300V and AWM 2464 Ⓒ Appliance Wiring Material	**9314**†°	100 U-500 1000	30.5 U-152.4 304.5	7.3 34.5 74.4	14 (41x30)	.022	.56	.043	1.09	.326	8.28
						Product Description: Tinned copper, PVC insulated, conductors cabled with Beldfoil tape shield, 16 AWG stranded tinned copper drain wire, chrome sunlight-resistant PVC jacket. Color code: Black, Red. U.L. LISTED as suitable for Class 2 and 3 circuits.					
	9312†°	100 500 1000	30.5 152.4 304.5	12.8 60.7 119.5	12 (65x30)	.032	.81	.053	1.35	.426	10.82
						Product Description: Tinned copper, PVC insulated, conductors cabled with Beldfoil tape shield, 14 AWG stranded tinned copper drain wire, chrome sunlight-resistant PVC jacket. Color code: Black, Red. U.L. LISTED as suitable for Class 2 and 3 circuits.					

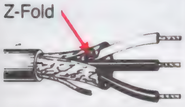
Three-Conductor Unshielded Cables

Product Description
Tinned copper, PVC insulated, conductors cabled, chrome sunlight-resistant PVC jacket. Color code: Black, Red, White.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft.	m			Inch	mm	Inch	mm	Inch	mm
 Ⓤ LISTED **E34972** 300V and AWM 2464 Ⓒ Appliance Wiring Material	**9491**†°	100 U-500 U-1000	30.5 U-152.4 U-304.5	2.7 12.3 23.6	22 (7x30)	.016	.41	.038	.97	.210	5.33
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9492†°	100 U-500 U-1000	30.5 U-152.4 U-304.5	3.4 14.7 28.4	20 (10x30)	.016	.41	.038	.97	.225	5.72
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9493†°	100 U-500 U-1000	30.5 U-152.4 U-304.5	4.2 19.0 36.9	18 (16x30)	.016	.41	.038	.97	.246	6.25
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9494†°	100 U-500 U-1000	30.5 U-152.4 U-304.5	5.5 25.3 49.5	16 (26x30)	.016	.41	.038	.97	.274	6.96
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9495†°	100 500 1000	30.5 152.4 304.5	8.3 40.1 83.8	14 (41x30)	.022	.56	.043	1.09	.342	8.69
						U.L. LISTED as suitable for Class 2 and 3 circuits.					

Three-Conductor Shielded Cables

Product Description
Tinned copper, PVC insulated, conductors cabled, overall Beldfoil tape and stranded tinned copper drain wire, chrome sunlight-resistant PVC jacket. Color code: Black, Red, White.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft.	m			Inch	mm	Inch	mm	Inch	mm
 Beldfoil 100% Shield Coverage Ⓤ LISTED **E34972** 300V and AWM 2464 Ⓒ Appliance Wiring Material	**9363**†°	100 U-500 U-1000	30.5 U-152.4 U-304.5	3.0 13.9 26.8	22 (7x30)	.016	.41	.038	.97	.212	5.38
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9364†°	100 U-500 U-1000	30.5 U-152.4 U-304.5	3.7 16.3 31.8	20 (10x30)	.016	.41	.038	.97	.227	5.77
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9365†°	100 U-500 U-1000	30.5 U-152.4 U-304.5	4.6 20.9 41.2	18 (16x30)	.016	.41	.038	.97	.248	6.30
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9366†°	100 U-500 U-1000	30.5 U-152.4 U-304.5	6.1 28.6 56.2	16 (26x30)	.016	.41	.038	.97	.276	7.01
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9367†°	100 500 1000	30.5 152.4 304.5	9.4 45.3 94.0	14 (41x30)	.022	.56	.043	1.09	.345	8.76
						U.L. LISTED as suitable for Class 2 and 3 circuits.					

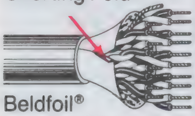
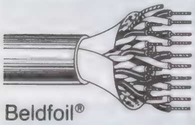
†Passes the VW-1 Vertical Wire Flame Test.
°Passes the U.L. 70,000 BTU Flame Test.

Power Limited 105C-300V Tray Cables (UL) LISTED
U.L. Subject 13 (NEC Article 725)

Overall Shielded Paired Cables

22 Gage
Stranded Conductors (7x30)

Product Description
Tinned copper, PVC insulated, pairs cabled with overall Beldfoil shield and stranded tinned copper drain wire, chrome sunlight-resistant PVC jacket. Conductor pairs are color-coded black and red. Multi-pairs are numbered at one-inch intervals.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm
 Beldfoil® 100% Shield Coverage (UL) LISTED **E34972** 300V and ЯU AWM 2464 Appliance Wiring Material	**9512**†°	2	100 500 1000	30.5 152.4 304.5	4.5 21.5 44.2	.016	.41	.043	1.09	.310	7.87
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9513†°	3	100 500 1000	30.5 152.4 304.5	5.4 26.0 55.7	.016	.41	.043	1.09	.326	8.28
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9514†°	4	100 500 1000	30.5 152.4 304.5	6.3 31.3 66.0	.016	.41	.043	1.09	.353	8.97
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9516†°	6	100 500 1000	30.5 152.4 304.5	10.0 48.2 94.4	.016	.41	.053	1.35	.425	10.80
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
 Beldfoil® 100% Shield Coverage (UL) LISTED **E34972** 300V and ЯU AWM 2464 Appliance Wiring Material	**9520**†°	9	100 500 1000	30.5 152.4 304.5	13.0 65.4 127.8	.016	.41	.053	1.35	.488	12.40
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9521†°	11	100 500 1000	30.5 152.4 304.5	14.7 74.0 149.1	.016	.41	.053	1.35	.536	13.61
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9524†°	15	100 500 1000	30.5 152.4 304.5	18.3 92.8 186.5	.016	.41	.053	1.35	.594	15.09
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9526†°	19	100 500 1000	30.5 152.4 304.5	24.7 117.0 227.0	.016	.41	.063	1.60	.631	16.03
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9527†°	27	100 500 ◆ 1000 ◆	30.5 152.4 304.5	32.2 159.4 326.8	.016	.41	.063	1.60	.741	18.82
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9551†°	51	100 500 ◆ 1000 ◆	30.5 152.4 304.5	55.2 282.6 595.1	.016	.41	.075	1.91	.950	24.13
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					

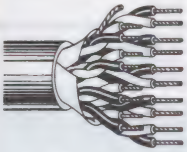
†Passes the VW-1 Vertical Wire Flame Test.
°Passes the U.L. 70,000 BTU Flame Test.
◆ Spools are one piece, but length may vary +20% −0 from length shown.

Power Limited 105C-300V Tray Cables (UL) LISTED (SP)
U.L. Subject 13 (NEC Article 725)

Overall Shielded Paired Cables

18 Gage
Stranded Conductors (16x30)

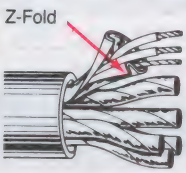
Product Description
Tinned copper, PVC insulated, pairs cabled with overall Beldfoil shield and stranded tinned copper drain wire, chrome sunlight-resistant PVC jacket. Conductor pairs are color-coded black and red. Multi-pairs are numbered at one-inch intervals.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		inch	mm	inch	mm	inch	mm
 Beldfoil® 100% Shield Coverage (UL) LISTED **E34972** 300V and ЯU AWM 2464 (SP) Appliance Wiring Material	**9552**†○	2	100 500 1000	30.5 152.4 304.5	7.1 35.6 71.2	.016	.41	.043	1.09	.361	9.17
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9553†○	3	100 500 1000	30.5 152.4 304.5	9.7 45.2 88.4	.016	.41	.053	1.35	.400	10.16
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9554†○	4	100 500 1000	30.5 152.4 304.5	12.1 60.0 116.9	.016	.41	.053	1.35	.451	11.46
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9556†○	6	100 500 1000	30.5 152.4 304.5	15.5 76.3 149.6	.016	.41	.053	1.35	.481	12.22
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9559†○	9	100 500 1000	30.5 152.4 304.5	22.8 113.2 227.4	.016	.41	.053	1.35	.596	15.14
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9563†○	11	100 500 1000	30.5 152.4 304.5	28.2 132.9 270.0	.016	.41	.063	1.60	.676	17.17
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9565†○	15	100 500 1000	30.5 152.4 304.5	34.3 165.5 335.0	.016	.41	.063	1.60	.750	19.05
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					

Multi-Pair, Individually Shielded Cables

22 Gage
Stranded Conductors (7x30)

Product Description
Tinned copper, PVC insulated, twisted pairs each with Beldfoil shield and stranded tinned copper drain wire, chrome sunlight-resistant PVC jacket. Conductor pairs are color-coded black and red. Multi-pairs are numbered at one-inch intervals.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		inch	mm	inch	mm	inch	mm
 Beldfoil 100% Shield Coverage (UL) LISTED **E34972** 300V and ЯU AWM 2464 (SP) Appliance Wiring Material	**9328**†○	2	100 500 1000	30.5 152.4 304.5	4.8 23.2 47.7	.016	.41	.043	1.09	.316	8.03
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9329†○	3	100 500 1000	30.5 152.4 304.5	6.2 28.3 62.2	.016	.41	.043	1.09	.331	8.41
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9330†○	4	100 500 1000	30.5 152.4 304.5	7.3 37.8 75.3	.016	.41	.043	1.09	.360	9.14
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9331†○	6	100 500 1000	30.5 152.4 304.5	11.8 55.7 113.5	.016	.41	.053	1.35	.437	11.10
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9332†○	9	100 500 1000	30.5 152.4 304.5	15.2 76.6 150.3	.016	.41	.053	1.35	.500	12.70
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9333†○	11	100 500 1000	30.5 152.4 304.5	18.2 90.3 181.5	.016	.41	.053	1.35	.551	14.00
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					

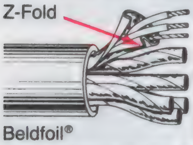
†Passes the VW-1 Vertical Wire Flame Test.
○Passes the U.L. 70,000 BTU Flame Test.

Power Limited 105C-300V Tray Cables UL LISTED
U.L. Subject 13 (NEC Article 725)

Multi-Pair, Individually Shielded Cables

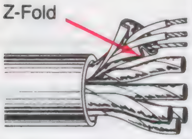
22 Gage (cont'd.)
Stranded Conductors (7x30)

Product Description
Tinned copper, PVC insulated, twisted pairs each with Beldfoil shield and stranded tinned copper drain wire, chrome sunlight-resistant PVC jacket. Conductor pairs are color-coded black and red. Multi-pairs are numbered at one-inch intervals.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m		Inch	mm	Inch	mm	Inch	mm
Z-Fold  Beldfoil® 100% Shield Coverage UL LISTED **E34972** 300V and ЯU AWM 2464 Appliance Wiring Material	**9334**†°	15	100 500 1000	30.5 152.4 304.5	25.2 117.8 228.6	.016	.41	.053	1.35	.606	15.39
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9335†°	19	100 500 1000	30.5 152.4 304.5	31.2 147.8 299.6	.016	.41	.063	1.60	.686	17.42
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9336†°	27	100 500 ♦ 1000 ♦	30.5 152.4 304.5	40.7 200.4 431.9	.016	.41	.063	1.60	.776	19.71
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9337†°	51	100 500 ♦ 1000 ♦	30.5 152.4 304.5	71.7 368.9 752.7	.016	.41	.075	1.91	1.050	26.67
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					

18 Gage
Stranded Conductors (16x30)

Product Description
Tinned copper, PVC insulated, twisted pairs each with Beldfoil shield and stranded tinned copper drain wire, chrome sunlight-resistant PVC jacket. Conductor pairs are color-coded black and red. Multi-pairs are numbered at one-inch intervals.

Z-Fold  Beldfoil 100% Shield Coverage UL LISTED **E34972** 300V and ЯU AWM 2464 Appliance Wiring Material	**9368**†°	2	100 500 1000	30.5 152.4 304.5	7.4 38.7 77.0	.016	.41	.043	1.09	.381	9.68
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9369†°	3	100 500 1000	30.5 152.4 304.5	11.7 55.2 108.3	.016	.41	.053	1.35	.421	10.69
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9388†°	4	100 500 1000	30.5 152.4 304.5	14.0 69.9 135.7	.016	.41	.053	1.35	.456	11.58
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9389†°	6	100 500 1000	30.5 152.4 304.5	19.3 95.8 187.6	.016	.41	.053	1.35	.546	13.87
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9390†°	9	100 500 1000	30.5 152.4 304.5	30.2 143.2 279.4	.016	.41	.063	1.60	.666	16.92
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9391†°	11	100 500 1000	30.5 152.4 304.5	34.7 165.5 335.0	.016	.41	.063	1.60	.686	17.42
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					
	9392†°	15	100 500 1000	30.5 152.4 304.5	44.0 217.0 428.0	.016	.41	.063	1.60	.766	19.46
						U.L. LISTED as Tray Cable suitable for Class 2 and 3 circuits.					

†Passes the VW-1 Vertical Wire Flame Test.
°Passes the U.L. 70,000 BTU Flame Test.
♦ Spools are one piece, but length may vary +20% –0 from length shown.

U.L. Subject 1277 (NEC Articles 318, 340 and 501) Class I

Tray Cable 90C, 600V U.L. Listed as Tray Cable under Subject 1277 for use as Tray Cable in accordance with Articles 318, 340 and 501 of the NEC.

Passes the U.L. 70,000 BTU Flame Test which is comparable to the IEEE 383 Flame Test. Also suitable for outdoor use and direct burial.

Tray Cables

Two-Conductor Unshielded Cables

Product Description
Stranded, tinned copper, PVC insulated nylon overcoat, conductors cabled, black sunlight-resistant PVC jacket. Conductor pairs are color-coded black and red.

Description	Trade & U.L. Style Number	Standard Lengths ft	Standard Lengths m	Std. Unit Lbs. ea	AWG (Stranding)	Insulation Thickness Inch	Insulation Thickness mm**	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm
	9486†°	100 500 1000	30.5 152.4 304.5	4.6 21.4 43.1	18 (16x30)	.016 PVC .005 Nylon	.41 .13	.048	1.22	.281	7.13
	9487†°	100 500 1000	30.5 152.4 304.5	5.6 26.1 53.5	16 (26x30)	.016 PVC .005 Nylon	.41 .13	.048	1.22	.306	7.77
UL LISTED **E64067** 600V	**9488**†°	100 500 1000	30.5 152.4 304.5	7.7 38.8 77.5	14 (41x30)	.022 PVC .005 Nylon	.56 .13	.048	1.22	.359	9.12
	9489†°	100 500 1000	30.5 152.4 304.5	9.8 48.3 96.1	12 (65x30)	.022 PVC .005 Nylon	.56 .13	.048	1.22	.384	9.75

Two-Conductor Shielded Cables

Product Description
Stranded, tinned copper conductor, PVC insulated, nylon overcoat, conductors cabled, Beldfoil shield and stranded tinned copper drain wire, black sunlight-resistant PVC jacket. Conductor pairs are color-coded black and red.

Description	Trade & U.L. Style Number	Standard Lengths ft	Standard Lengths m	Std. Unit Lbs. ea	AWG (Stranding)	Insulation Thickness Inch	Insulation Thickness mm**	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm
	9341†°	100 500 1000	30.5 152.4 304.5	5.1 23.5 47.4	18 (16x30)	.016 PVC .005 Nylon	.41 .13	.048	1.22	.278	7.06
	9342†°	100 500 1000	30.5 152.4 304.5	6.3 30.0 61.3	16 (26x30)	.016 PVC .005 Nylon	.41 .13	.048	1.22	.304	7.72
Beldfoil® 100% Shield Coverage UL LISTED **E64067** 600V	**9343**†°	100 500 1000	30.5 152.4 304.5	8.7 44.3 88.1	14 (41x30)	.022 PVC .005 Nylon	.56 .13	.048	1.22	.358	9.09
	9344†°	100 500 1000	30.5 152.4 304.5	11.3 56.7 113.3	12 (65x30)	.022 PVC .005 Nylon	.56 .13	.048	1.22	.380	9.65

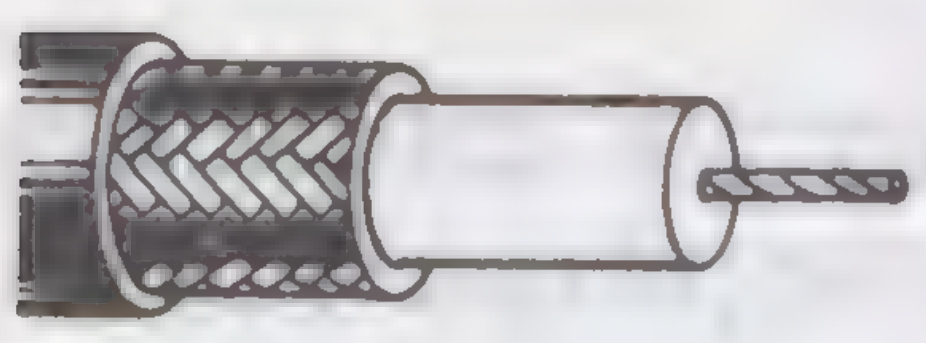
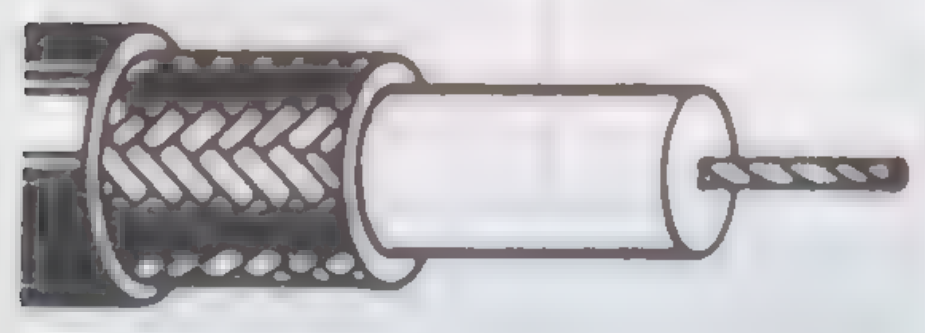
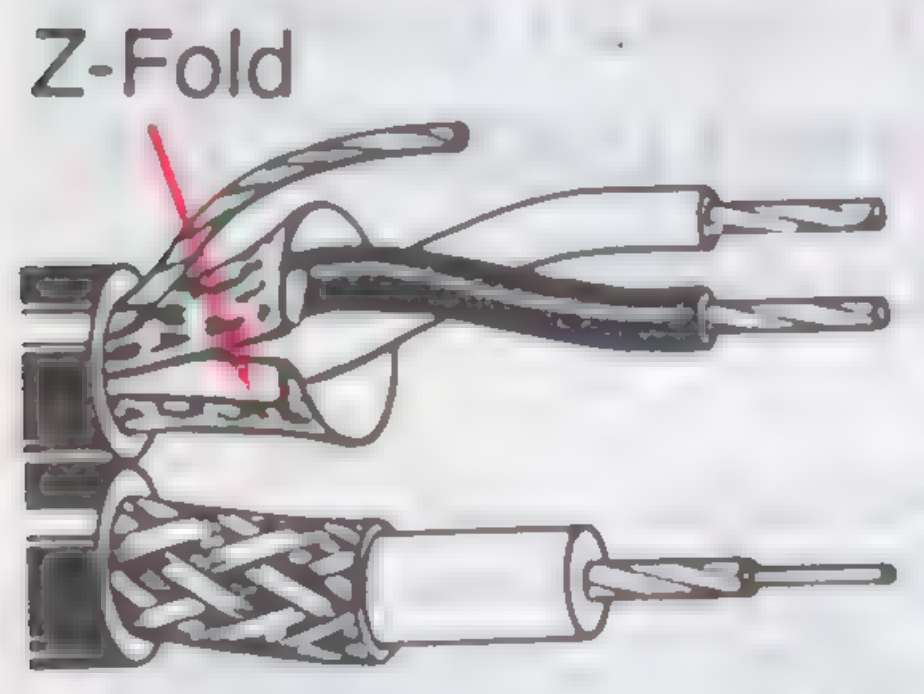
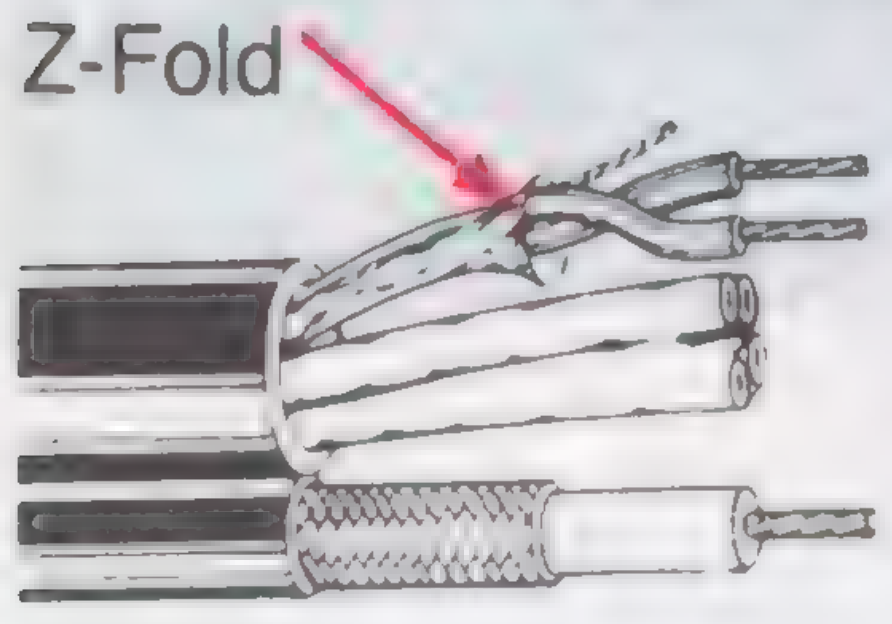
†Passes the VW-1 Vertical Wire Flame Test.
°Passes the U.L. 70,000 BTU Flame Test.

TV Camera Cables and CCTV Cables

Belden TV Broadcast and Closed Circuit TV Camera Cables assure reliable circuit isolation, thereby reducing AC hum and minimizing cross-talk between circuits. They are made to withstand rugged service and to maintain high conductor insulation resistance regardless of ambient temperature changes.

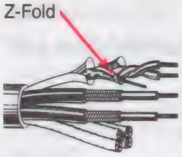
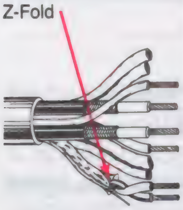
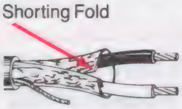
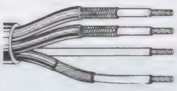
Major uses for these cables are for controlling, powering and transmitting sound and picture information for monochrome and color TV cameras, as well as for remote control, monitor and cue line systems.

Belden TV Camera Cables are engineered to be lightweight, flexible and easy to terminate. They are manufactured and tested in accordance with Belden's own rigid and time-proven quality control standards in order to assure outstanding reliability, performance and service life.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 **RG-59/U Type**	**9259** ЯU 1354 80C	50 100 U-500 500 U-1000 1000	15.2 30.5 U-152.4 152.4 U-304.8 304.8	2.0 4.0 18.4 19.1 35.7 36.7	22 (7x30) .031 bare copper 15.0Ω/M' 49.2Ω/km	Cellular Poly-ethylene .146	3.71	.242	6.15	Bare copper 2.6Ω/M' 8.5Ω/km 95% shield coverage	75	78%	17.3	56.8	1 5 10 50 100 200 400 700 900 1000	.4 .8 1.0 2.1 3.0 4.5 6.6 8.9 10.1 10.9	1.3 2.6 3.3 6.9 9.8 14.8 21.7 29.2 33.1 35.8
											Recommended for camera to recorder to monitor connections. Stranded center conductor adds the flexibility needed to resist severe twisting, bending and other stresses which occur in many CCTV applications. Black PVC jacket.						
 **RG-59/U Type**	**New 9659†** ЯU 1354 80C	50 100 U-500 500 U-1000 1000	15.2 30.5 U-152.4 152.4 U-304.8 304.8	2.0 4.0 16.8 17.5 32.6 33.6	22 (7x30) .031 bare copper 15.0Ω/M' 49.2Ω/km	Cellular Poly-ethylene .146	3.71	.242	6.15	Bare copper 2.6Ω/M' 8.5Ω/km 95% shield coverage	75	78%	17.3	56.8	1 5 10 50 100 200 400 700 900 1000	.4 .8 1.0 2.1 3.0 4.5 6.6 8.9 10.1 10.9	1.3 2.6 3.3 6.9 9.8 14.8 21.7 29.2 33.1 35.8
											Non-contaminating black PVC jacket. For CCTV applications. 100% Sweep Tested 5-300 MHz						
 Beldfoil® **RG-59/U Type**	**9265** ЯU 20006 60C	500 1000	152.4 304.8	30.5 60.4	2 Cond. 22 (7x30) .030 tinned copper 14.7Ω/M' 48.2Ω/km	PVC .054	.137	.242 x .445	6.15 x 11.30	1 pair Beldfoil shielded 100% shield coverage	—	—	51.0	167.0	—	—	—
											Color code: Black, Red.						
					1 Coax 22 (7x30) .031 bare copper 15.0Ω/M' 49.2Ω/km	Cellular Poly-ethylene .146	3.71			Bare copper 2.6Ω/M' 8.5Ω/km 95% shield coverage	75	78%	17.3	56.8	1 5 10 50 100	.4 .8 1.0 2.1 3.0	1.3 2.6 3.3 6.9 9.8
											Black PVC jacket. 100% Sweep Tested 5 to 300 Mhz Siamese Type Cable RG59/U Type with Beldfoil aluminum-polyester shielded twisted pair.						
 **For Electronic News Gathering (ENG) and CCTV Applications**	**9165†** ЯU 20006 60C	500 1000	152.4 304.8	46.7 91.3	3 Pairs 22 (7x30) .030 tinned copper 15.0Ω/M' 49.2Ω/M'	PVC .054 ea.	.137	.290 x .561	7.37 x 14.25	3 pairs individually Beldfoil shielded 100% shield coverage w/drain	—	—	51.0	167.0	—	—	—
					1 Coax 22 (7x30) .031 bare copper 15.0Ω/M' 49.2Ω/km	Cellular Poly-ethylene .146	3.71			Bare copper 2.6Ω/M' 8.5Ω/km 95% shield coverage	75	78%	17.3	56.8	1 5 10 100	.4 .8 1.0 3.0	1.3 2.6 3.3 9.8
											Black PVC jacket. Siamese Type Cable RG59/U Type with Beldfoil aluminum-polyester shield twisted pairs. Color code: Red/Black, Orange/Brown, Green/White.						

†Passes the VW-1 Vertical Wire Flame Test.

TV Camera Cables and CCTV Cables

Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft	db/100 m
 **12-Conductor EFP & ENG Camera Cable**	**9170†** 75C	250 500 1000	76.2 152.4 304.8	28.2 60.0 117.0	2 Coax. cables 25 (7x33) .022 bare copper 31.2Ω/M' 102.0Ω/km	Cellular Poly-ethylene .100	2.54	Overall .490	12.40	Tinned copper over each coax. 6.0Ω/M' 19.7Ω/km 93% shield coverage	75	78%	17.3	56.8	1 10 50 100 300 500	.4 1.5 3.8 5.6 10.6 13.8	1.3 4.9 12.5 18.4 34.8 45.3
					5 Pairs 24 (7x32) .024 tinned copper 24.0Ω/M' 78.0Ω/km	Poly-propylene .044	1.12			Beldfoil® 100% shield coverage over each pair drain wire 18.0Ω/M' 59.1Ω/km	—	—	27.0	88.6	—	—	—
											Chrome PVC jacket. Color code: coax—Black, Black w/White Hash Marks. Pairs—Black/Red, Black/White, Black/Green, Black/Blue, Black/Yellow.						
 **14-Conductor Electronic Field Production (EFP) Camera Cable**	**9171** 75C	250 500 1000	76.2 152.4 304.8	49.7 97.8 196.7	2 Coax. 22 (7x30) .031 bare copper 15.0ΩM' 49.2Ω/km	Cellular Poly-ethylene .146	3.71	Overall .585	14.86	Bare copper 2.6Ω/M' 8.55Ω/km 95% shield coverage over ea. coax.	75	78%	17.3	56.8	1 5 10 50 100	.4 .8 1.0 2.3 3.0	1.3 2.6 3.3 7.5 9.8
											Color code of 2 coax: Black, Black w/Hash Marks.						
					5 Pairs 22 (7x30) .030 tinned copper 15.0Ω/M' 49.2Ω/km	PVC .054 ea.	.137			5 Pairs individually Beldfoil® shielded 100% shield coverage w/drain			51.0	167.0	—	—	—
											Color code of shielded pairs: Black/Red, Black/White, Black/Green, Black/Blue, Black/Yellow.						
					2 Cond. 16 (26x30) .060 tinned copper 4.0Ω/M' 13.0Ω/km	PVC .094 ea.	2.39				Chrome PVC jacket. Color code of 2x16: Orange, Violet.						
 **2-Conductor Digital Video Time Code Cable**	**9180†** 80C	500 U-500 1000 U-1000	152.4 U-152.4 304.8 U-304.8	5.4 5.7 11.0 10.4	26 (7x34) .018 tinned copper 41.0Ω/M' 134.5Ω/km	Datalene™ .049	1.24	.144	3.66	Beldfoil 26 (7x34) tinned copper drain wire 23.1Ω/M' 75.8Ω/km	100	78%	13.0	42.7			
											Chrome PVC jacket. Conductor color code: Black, White.						
 **4-Conductor Video Tape Recorder (VTR) Cable**	**9176** ЯU 2668 30V 60C	500 1000	152.4 304.8	17.4 33.4	2 Coax. 28 (7x36) .015 tinned copper 65.0Ω/M' 213.0Ω/km	Cellular Poly-ethylene .041	1.04	Overall .260	6.60	Tinned copper 94% shield coverage over each coax. (braid)	50	78%	26.0	85.3			
											Coax color code: Gray PVC jacket, Blue PVC jacket.						
					1 Cond. 24 (10x34) .024 tinned copper 26.0Ω/M' 85.0Ω/km	PVC .056	1.42				Brown PVC jacket.						
					1 Shielded conductor 28 (7x36) .015 65.0Ω/M' 213.0Ω/km	PVC .035	.89			Tinned copper 94% shield coverage (spiral)	Yellow PVC jacket. Overall Gray PVC jacket.						

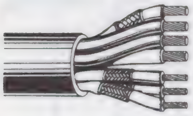
†Passes the VW-1 Vertical Wire Flame Test.

TV Camera Cables and CCTV Cables

7-Conductor Video Tape Recorder (VTR) Cable

Specifications
3–20 AWG (26x34) tinned copper conductors, PVC insulated, unshielded, color coded white, brown, violet.
4–24 AWG (7x32) cellular polyethylene-insulated coaxial cables. Nominal impedance 38 ohms. Bare copper braid shield over each coax—94% shield coverage.
O.D. .410″ (10.19 mm). Overall gray PVC jacket.

Underwriters Laboratories Inc. Listed. (Style 2502)

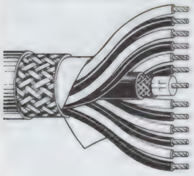
	Trade & U.L. Style Number	Standard Spool Lengths ft	Standard Spool Lengths m	Standard Unit Lbs. ea.
	**9175†** ЯU 2502 30V 80C	250 500 1000	76.2 152.4 304.8	22.1 45.9 89.4

13-Conductor Remote Control and Video Cable

Specifications
12–20 AWG (7x28) tinned copper conductors, PVC insulated, color coded 1-75 ohm coax.
22 AWG stranded bare copper conductor, foam polyethylene insulated. Nominal Core O.D. .146″ (3.71 mm), bare copper braid shield, 95% coverage, black PVC jacket.
Overall tinned copper braid shield. 80% shield coverage.
Overall gray PVC jacket, .460″ (11.7 mm) nominal O.D.

Underwriters Laboratories Inc. Listed. (Style 2594)

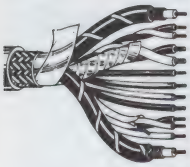
Recommended for use in installations requiring external drive signals, tallies, intercom, switching and video operations.

	Trade & U.L. Style Number	Standard Spool Lengths ft	Standard Spool Lengths m	Standard Unit Lbs. ea.
	**9262†** ЯU 2594 60C	50 100 500 1000	15.2 30.5 152.4 304.8	8.3 16.8 83.2 163.4

13-Conductor Camera Extension Cable

Specifications
2–20 AWG (10x30) tinned copper, PVC insulated, color coded, twisted pair, Mylar tape wrapped.
9–22 AWG (7x30) tinned copper, PVC insulated, 2 conductors cabled, Beldfoil® shield, 2 conductors cabled unshielded, 5 conductors unshielded.
2–Cellular polypropylene-insulated coaxial cables. Nominal impedance 75 ohms, color coded. 97% shield coverage.
Overall tinned-copper braid shield. 83% shield coverage. 550″ (14.0 mm) Nominal O.D. Chrome PVC jacket.

Underwriters Laboratories Inc. Listed. (Style 2497)
Recommended for remote control, closed circuit and cue line applications. Style 2497 specified for the Dage 800 camera and other similar cameras.

	Trade & U.L. Style Number	Standard Spool Lengths ft	Standard Spool Lengths m	Standard Unit Lbs. ea.
	**9254ᴾ†** ЯU 2497 60C	100 250◆ 500◆ 1000◆ 1500◆	30.5 76.2 152.4 304.8 457.2	20.1 45.4 89.0 178.6 270.4

†Passes the VW-1 Vertical Wire Flame Test.
ᴾBelden U.S. Patent 3,032,604.
◆ Spools are one piece, but length may vary +20% −0 from length shown.

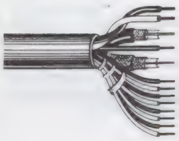
TV Camera Cables and CCTV Cables

	Trade & U.L. Style Number	Standard Spool Lengths ft.	Standard Spool Lengths m	Standard Unit Lbs. ea.

13-Conductor TV Eye Cable

Specifications

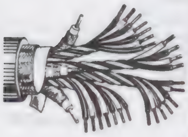
8–22 AWG (7x30) tinned copper, PVC insulated, color coded.
1–22 AWG (7x30) polyethylene-insulated conductor.
2–18 AWG (16x30) tinned-copper conductor, PVC insulated, black and red.
1–RG-58A/U cable 50 ohm coax. 97% shield coverage.
1–72 ohm coax, stranded conductor, polyester-tape wrapped. 97% shield coverage, Chrome PVC jacket. .470″ (11.9 mm) Nominal O.D.
Especially engineered for TV Eye Cameras. Recommended for remote control, monitor and cue line applications.

	**8282†**	100	30.5	15.0
	60C	250	76.2	36.8
		500	152.4	73.1
		1000	304.8	148.2
		1500	457.2	213.8

28-Conductor TV Camera Cable

Specifications

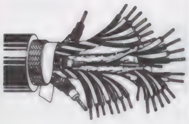
4–18 AWG (16x30) tinned copper, PVC insulated, ring band stripe color coded. Beldfoil® aluminum-polyester wrapped shield around 4 conductors with stranded drain wire, polyester tape over this shielded group.
21–22 AWG (7x30) tinned copper, PVC insulated, cabled in 3 groups of 7, ring band stripe color coded, one group of 7 has a Beldfoil aluminum-polyester wrapped shield overall with a stranded drain wire, polyester tape over this shielded group.
3 coaxial cables. Nominal impedance 75 ohms, RG-59/U type with cellular polypropylene insulation. 85% shield coverage.
Tinned-copper braid shield, 86% shield coverage. Chrome PVC jacket. .810″ (20.5 mm) Nominal O.D.
+20% −0 length tolerance.
Recommended for transistorized TV cameras.

	**9253†**	100	30.5	42.0
	2511	250 ◆	76.2	104.4
	60C	500 ◆	152.4	212.8
		1000 ◆	304.8	411.5

28-Conductor TPE TV Camera Cable

Specifications

4–18 AWG (16x30) tinned copper, PVC insulated ring band stripe color coded. Beldfoil aluminum-polyester wrapped shield around 4 conductors with stranded drain wire, polyester tape over this shielded group.
21–22 AWG (7x30) tinned copper, PVC insulated, cabled in 3 groups of 7, ring band stripe color coded, one group of 7 has a Beldfoil aluminum-polyester wrapped shield overall with a stranded drain wire, polyester tape over this shielded group.
3 coaxial cables. Nominal impedance 75 ohms. 95% shield coverage.
Tinned-copper braid shield, Black thermoplastic elastomer jacket. .730″ (18.54 mm) O.D. 86% shield coverage.
+20% −0 length tolerance.
A 75 ohm cable designed to remain flexible in cold weather. Recommended for transistorized TV cameras.

	**8286**	100	30.5	33.0
	80C	250 ◆	76.2	80.5
		500 ◆	152.4	162.1
		1000 ◆	304.8	318.1

†Passes the VW-1 Vertical Wire Flame Test.
◆ Spools are one piece, but length may vary +20% −0 from length shown.

Local Area Network

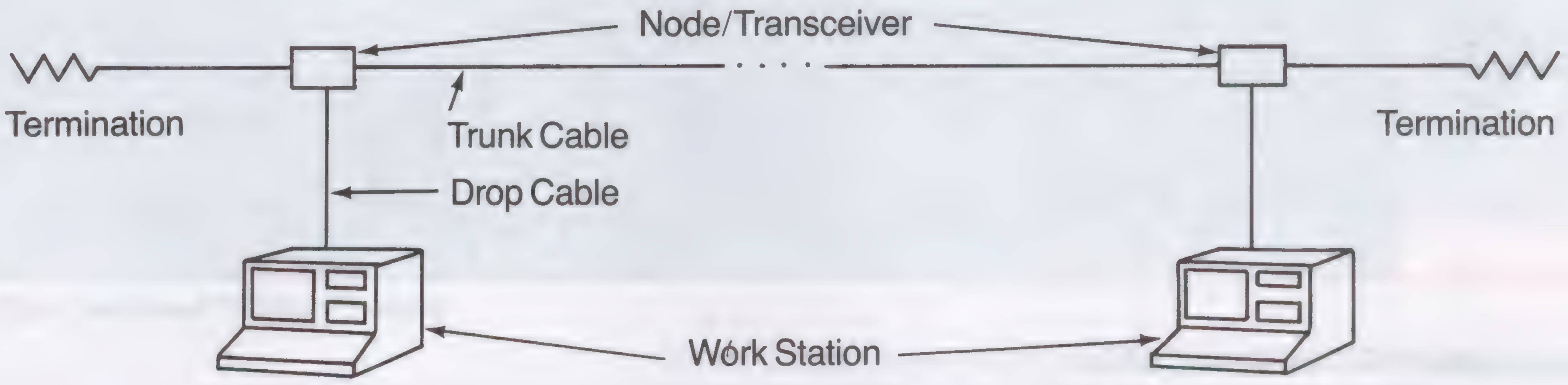
Local area network systems (or LANs) have emerged as a key development as our society progresses in the "information age." LANs are providing for the integration of computer and communication technology to meet the "information age" demand for efficient information (or data) processing, handling, collection and distribution. LANs fulfill their function throughout a local region without using telephone, microwave or satellite links.

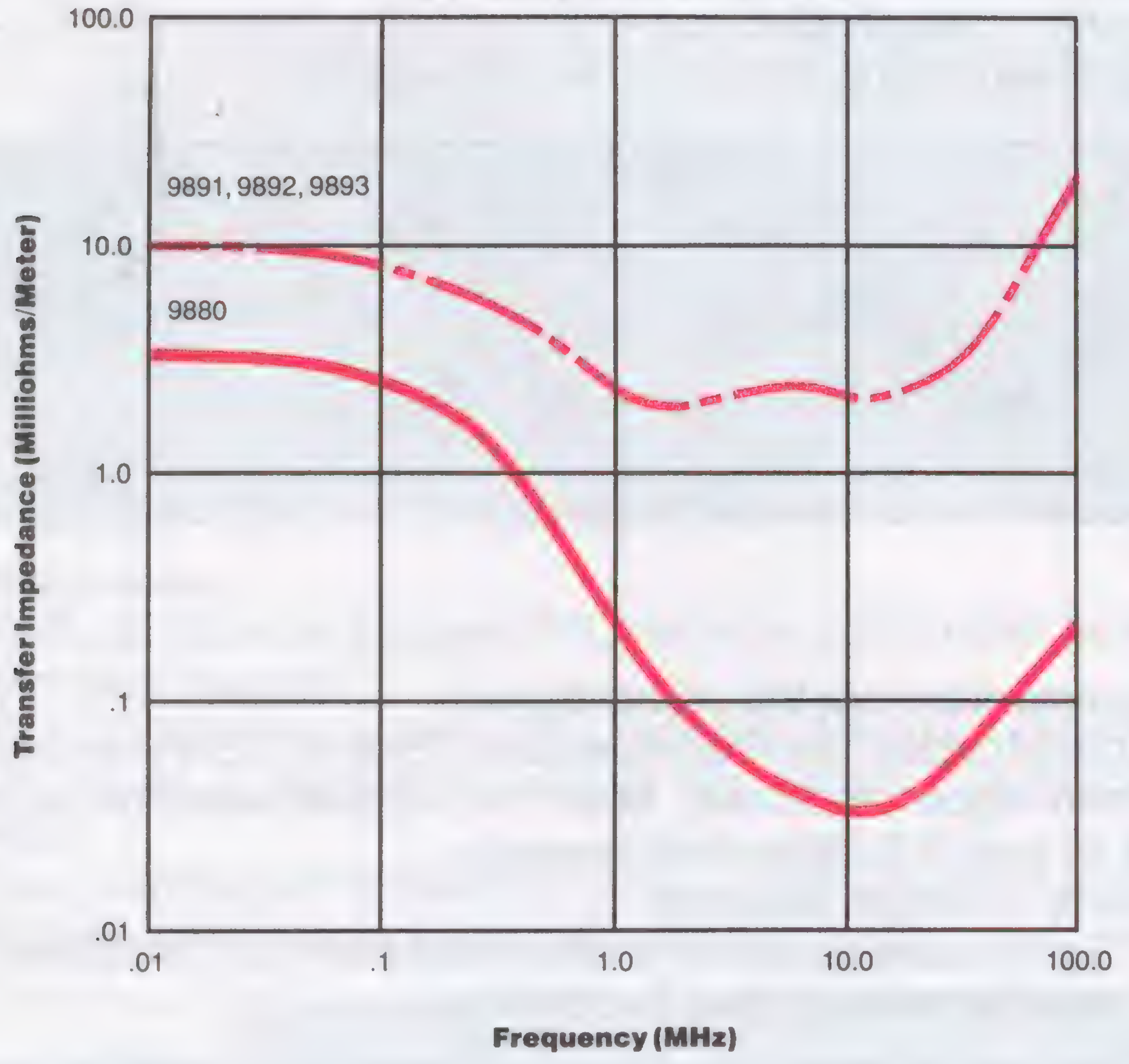
One example of LAN topology, the bus network, is shown below. Other topologies such as the ring, mesh, tree, or star networks are also important in LAN developments. Regardless of the topology, cabling is the key element which provides for distribution and communication throughout the LAN. Both coaxial and twisted pair cables are utilized. Either may be used to fulfill the trunk cable distribution and drop cable node/work station attachment functions indicated.

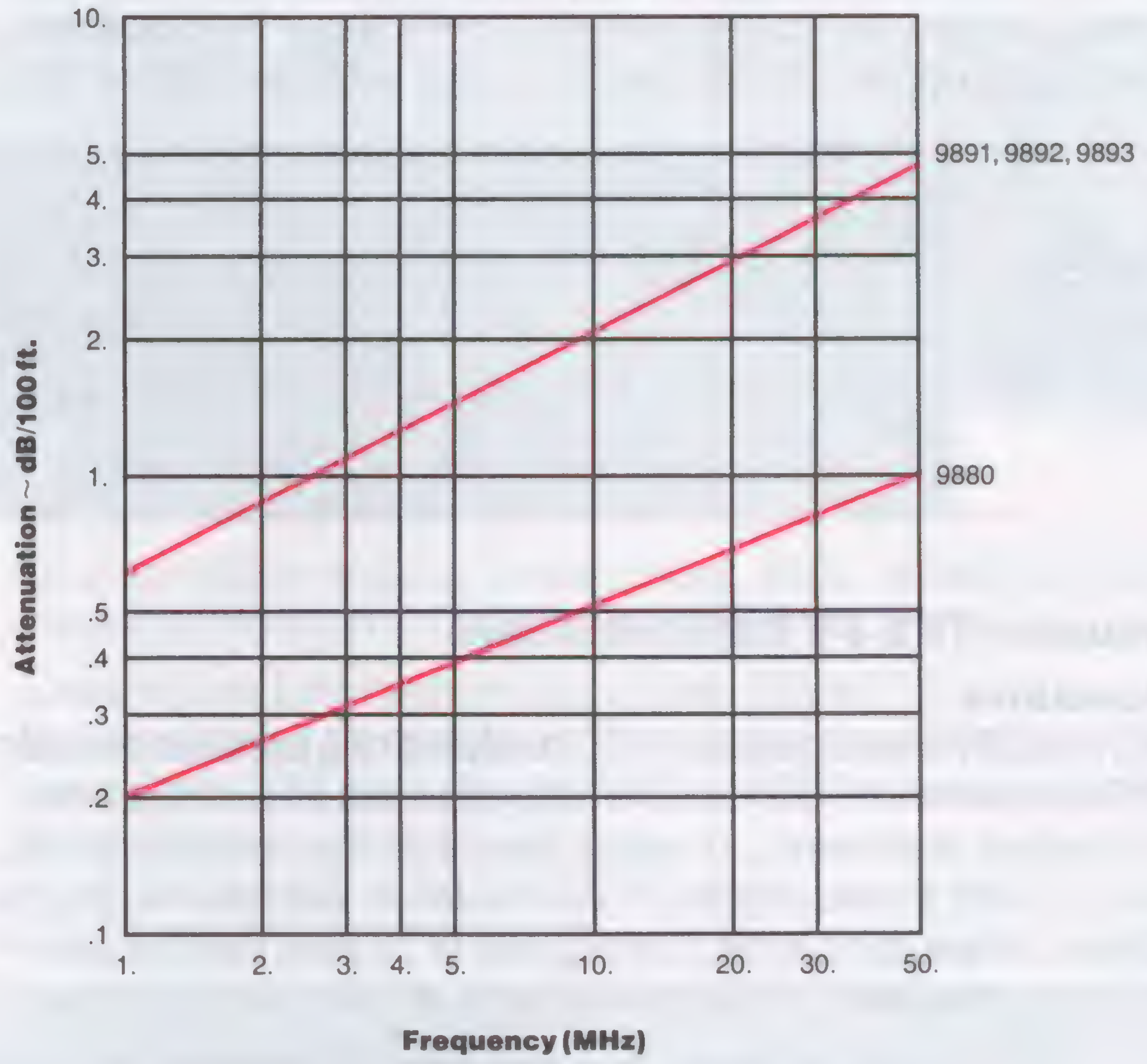
Choice of coax or twisted pair is made after a careful study of system data speed and electrical requirements. Cable electrical characteristics of concern are characteristic impedance, sinusoidal attenuation, velocity of propagation, and shield transfer impedance.

The cables described in this section are finding current usage in LAN applications. Cables described in the Multi-conductor, Paired, Coaxial, and Fiber Optics sections may also be applicable.

Bus Network Topology



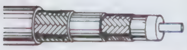
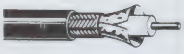

Transfer Impedance Frequency Characteristic


Sinusoidal Frequency Attenuation Chart

Locate the line on the chart which represents the desired cable.
Locate the frequency on the bottom horizontal scale.
Read up to the desired line and then across to the vertical scale on the left to find attenuation figure for that frequency.

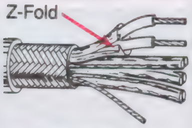
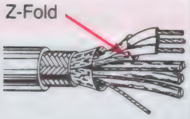
Local Area Network Cables

Trunk Coaxial Cables

Description	Trade & U.L. Style Number	Standard Lengths ft.	Standard Lengths m	Std. Units Lbs. ea.	AWG (Stranding) Dia. in Inches D.C.R.	No. of Shields and Material D.C.R.	Insulation & Nominal Core O.D. Inch	Insulation & Nominal Core O.D. mm	Nominal O.D. Inch	Nominal O.D. mm	Nom. Imp.	Nom. Vel. of Prop.	Nominal Capacitance pF/ft.	Nominal Capacitance pF/m
 **Ethernet™▲**	**9880†** ЯU 1478 30V 60C	500 1000 1640	152.4 304.8 500.0	61.2 120.5 201.5	Solid tinned copper .0855 1.42Ω/M′ 4.66Ω/km	Aluminum/Polyester shield bonded to dielectric + 92% tinned copper braid + Duofoil® + 92% tinned copper braid 1.52Ω/M′ 5.0Ω/km	Cellular Polyethylene .247	6.27	.405	10.28	50	78%	26	85
							Product Description: Tinned copper, cellular polyethylene dielectric, aluminum polyester foil shield, 92% tinned copper braid, Duofoil shield, 92% tinned copper braid, yellow PVC jacket. **For Plenum version, see 89880 on page 131.**							
 **RG-6/U Type**	**9248†** 30V 60C	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	15.6 16.4 30.3 33.3	18 (Solid) .037 bare copper 7.5Ω/M′ 24.6Ω/km	Duofoil +61% tinned copper braid 5.2Ω/M′ 17.1Ω/km 100% shield coverage	Cellular Polyethylene .180	4.57	.270	6.86	75	78%	17.3	56.8
							Black PVC jacket. 100% Sweep Tested							

Transceiver/Drop Cables

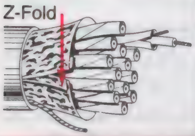
Product Description
Tinned copper, polyethylene insulated, twisted pairs, each pair individually shielded with Beldfoil aluminum-polyester shield (aluminum foil out), 20 AWG stranded tinned copper drain wire, 94% coverage tinned copper braid overall, blue PVC jacket.

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	Nom. D.C.R. Conductor	Nom. D.C.R. Shield	Nominal O.D. Inch	Nominal O.D. mm	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance * pF/ft.	Nominal Capacitance * pF/m	Nominal Capacitance ** pF/ft.	Nominal Capacitance ** pF/m	††6 dbv Length Limit in Thnds. of ft.
Z-Fold  **Ethernet™▲** ЯU 2919 30V 80C	**9891†**	4	100 500 1000	30.5 152.4 304.8	10.1 47.2 92.4	3 Pair 22 (7x30) 14.7Ω/M′ 48.2Ω/km 1 pair 20 (7x28) 9.3Ω/M′ 30.4Ω/km	4 Beldfoil® shielded pairs +94% braid overall 3.0Ω/M′ 10.0Ω/km	.395	10.03	78 (3 Pairs)	66	19.7	64.6	34.7	113.8	2.6
								Blue PVC jacket.		(20 AWG pair PVC insulated)						
	9892†	4	100 500 1000	30.5 152.4 304.8	11.0 56.3 110.6	20 (7x28) 9.3Ω/M′ 30.4Ω/km	4 Beldfoil shielded pairs +94% braid overall 3.0Ω/M′ 10.0Ω/km	.420	10.67	78 (3 Pairs)	66	19.7	64.6	34.7	113.8	4.2
								Blue PVC jacket.		(One pair PVC insulated) **For Plenum version, see 89892 on page 130.**						
	9893†	5	100 500 1000	30.5 152.4 304.8	15.9 78.5 153.9	20 (7x28) 9.3Ω/M′ 30.4Ω/km	5 Beldfoil shielded pairs +94% braid overall 3.0Ω/M′ 10.0Ω/km	.510	12.95	78 (4 Pairs)	66	19.7	64.6	34.7	113.8	4.2
								Blue PVC jacket.		(One pair PVC insulated)						
Z-Fold  **Ethernet™▲**	**New 9898** ЯU 2919 30V 80C	1 Triplet	100 500 1000	30.5 152.4 304.8	4.9 23.5 47.5	1 Triplet 24 (7x32) 24Ω/M′ 78.7Ω/km	Beldfoil	.260	6.60	—	—	—	—	—	—	—
								Fawn Gray PVC Jacket		(Triplet is PVC insulated)						
		3				3 Pair 28 (7x36) 64.9Ω/M′ 213.0Ω/km	Beldfoil on pairs + Duofoil + 90% braid overall			78	66	19.7	64.6	34.7	113.8	.6
										Product Description: Tinned copper, polypropylene insulated, three twisted pairs and one triplet, each individually shielded with Beldfoil aluminum-polyester shield, foil out. Overall Duofoil shield with 24 AWG stranded tinned copper drain wire, 90% coverage tinned copper braid overall, fawn gray PVC jacket.						

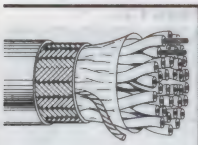
▲Xerox trademark
†Passes VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.

Computer Cables

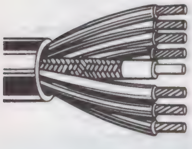
Synchronous EIA Interface Cable

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	
Z-Fold 	**New 9868** ЯU 2384 30V 60C	14 Cdr.	100 500 1000	30.5 152.4 304.8	6.7 33.9 67.8	28 (7x36) 64.6Ω/M' 212.9Ω/km	Individual 44.0Ω/M' 144.3Ω/km overall 20.5Ω/M' 67.3Ω/km	.394	10.0	65	78%	—	—	20.5	67.3	—
								Product Description: Tinned copper, Datalene® insulated, individually Beldfoil® shielded conductors are isolated from adjacent shields and each has a 28 AWG stranded drain wire, overall Beldfoil® shield with 28 AWG stranded tinned copper drain wire. Overall gray PVC jacket.								

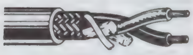
IEEE 488 Interface Cable

Description	Trade & U.L. Style Number	No. of Pairs	Standard Lengths		Std. Unit Lbs. ea.	Nominal D.C.R.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop	Nominal Capacitance				††6 dbv Length Limit in Thnds. of ft.
			ft.	m		Conductor	Shield	Inch	mm			* pF/ft.	* pF/m	** pF/ft.	** pF/m	
	**9641**† ЯU 2464 300V 80C	23 Cdr.	100 500 1000	30.5 152.4 304.8	9.3 42.1 83.7	26 (7x34) tinned copper 37.5Ω/M' 123.0Ω/km	Tinned copper braid 91% coverage 2.59Ω/M' 8.5Ω/km	.350	8.9	—	—	38	124.6	—	—	—
		6 Pr.														
		10 Cdr				26 (7x34) tinned copper 37.5Ω/M' 123.0Ω/km						35	114.8			
		1 Cdr.				24 (7x32) tinned copper 24.0Ω/M' 78.7Ω/km		**Product Description:** Tinned copper, S-R PVC insulated, 6 twisted pairs, 11 conductors, overall tinned copper braid 91% coverage, drain wire, gray PVC jacket.								

Multi-Conductor Plus Coax

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Nom. D.C.R.	No. of Shields and Material Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance	
		ft.	m				Inch	mm	Inch	mm			pF/ft.	pF/m
	**9881** ЯU 2704 30V 60C	100 500 1000	30.5 152.4 304.8	5.4 25.31 52.20	7 Conds. 26 (7x34) tinned copper 37.5Ω/M' 123.0Ω/km		PVC .010	.25	.310	7.87	—	—	—	—
					1 Coax 22 Solid bare copper 16.5Ω/M' 54.1Ω/km	1 bare copper 93% coverage 4.26Ω/M' 13.9Ω/km	Foam Polyethylene .125	3.18			75	78%	17.5	57.4
							Product Description: Coax: 22 AWG solid bare copper center conductor, foam polyethylene, bare copper braid shield, overall polyester tape wrapped. Seven conductors, 26 AWG stranded tinned copper, PVC insulated, cabled around coax, overall Mylar tape, black PVC jacket. Color code: Orange, Yellow, Dark Green, Dark Blue, Purple, Gray, Natural.								

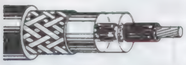
AppleTalk™ LAN Cable

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Nom. D.C.R.	No. of Shields and Material Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance	
		ft.	m				Inch	mm	Inch	mm			pF/ft.	pF/m
	**9999** ЯU 2092 300V 60C	500 U-1000 1000 2000	152.4 U-304.8 304.8 609.6	12.2 22.3 23.1 46.6	22 (7x30) tinned copper 17.0Ω/M' 55.7Ω/km	1 tinned copper 4.68Ω/M' 15.4Ω/km 85% shield coverage	Polyethylene Color coded White, Blue		.185	4.7	78	66%	19.7	64.6
							Product Description: Twinaxial cable consisting of polyethylene insulated 22 AWG stranded tinned copper conductors, tinned copper braid shield, snow beige PVC jacket.							

†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductor connected to shield.
††6dbv length limit is the cable length at which 50% of the DC input volume appears across the load if the cable is terminated in its characteristic impedance.
AppleTalk™ Apple Computer trademark.

Special Audio, Communication and Instrumentation Cables

Low Triboelectric Noise Coaxial Cables

Description	Trade & U.L. Type Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in In. Nom. D.C.R.	Insulation & Nominal Core O.D.		Nominal O.D.		No. of Shields & Material Nom. D.C.R.	Nom. Imp. Ω	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm	Inch	mm				pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
RG-174/U Type 5 mv peak to peak max.	**9239** 75C	100 500 1000	30.5 152.4 304.8	.8 4.2 7.5	26 (7x34) .019 bare copper covered steel 97.0Ω/M' 318.3Ω/km	Poly-ethylene .048	1.22	.101	2.57	Tinned copper 11Ω/M' 36.1Ω/km 94% shield coverage	—	62%	38	124.7	—	—	—
											Product Description: Bare copper covered steel conductor, polyethylene insulation, conductive layer, tinned copper braid shield. Black PVC jacket. Not recommended for RF use.						
 **RG-58/U Type** 8 mv peak to peak max.	**9223**† 75C	100 500 1000	30.5 152.4 304.8	2.9 13.6 25.6	22 (7x30) .030 tinned copper 10.8Ω/M' 35.4Ω/km	Poly-ethylene .112	2.84	.195	4.95	Duobond II® +95% tinned copper braid 4.1Ω/M' 13.5Ω/km 100% shield coverage	—	50%	38	124.7	—	—	—
											Product Description: Tinned copper conductor, conductive layer, polyethylene insulation. Duobond II® tinned copper braid shield. Black PVC jacket. Not recommended for RF use.						
RG-59/U Type 5 mv peak to peak max.	**9224** 75C	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	3.9 17.2 18.0 33.4 34.4	22 (Solid) .025 bare copper covered steel 65.0Ω/M' 213.3Ω/km	Poly-ethylene .146	3.71	.240	6.10	Bare copper 8.1Ω/M' 26.6Ω/km 93% shield coverage	—	65%	22	72.2	—	—	—
											Product Description: Bare copper covered steel conductor, polyethylene insulation, conductive layer, bare copper braid shield. Black PVC jacket. Not recommended for RF use.						

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m
25 Gage Stranded Conductors (7x33)																	
Shorting Fold Beldfoil® 100% Shield Coverage	**8434** 80C	4	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	1.8 8.2 7.8 15.4 16.1	(7x33) 3 copper 4 copper coated steel	.012	.30	.020	.51	.165	4.19	Red Black Green White	25	82	40	131
						Product Description: Tinned conductors, polyethylene insulated, black and red conductors under Beldfoil aluminum-polyester shield, 25 AWG stranded tinned drain wire, green and white conductors under overall Beldfoil aluminum-polyester shield, chrome PVC jacket. Pairs cabled on common axis to reduce diameter∅. Suggested working voltage: 400.											

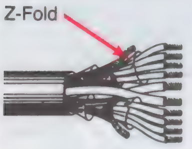
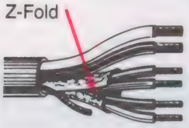
†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
∅Request Technical Data Bulletin T/8-21 before planning high and low level circuits in same cable.

Special Audio, Communication and Instrumentation Cables

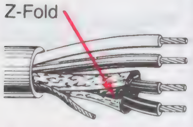
Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m

24 and 22 Gage
Stranded Conductors (7x32 and 7x30)

Product Description
Tinned copper, 22 AWG conductors PVC insulated, 24 AWG conductors polyethylene insulated, cabled in 2 quads, each with transparent polyester tape wrap. 24 AWG stranded tinned copper drain wire, red Beldfoil shield over one quad, green Beldfoil shield over the other quad, 2 quads and 2 unshielded conductors cabled, chrome PVC jacket. Suggested working voltage: 350.

Description	Trade & U.L. Style Number	No. of Cond.	ft.	m	Std. Unit Lbs. ea.	AWG (Stranding)	Ins. Inch	Ins. mm	Jacket Inch	Jacket mm	O.D. Inch	O.D. mm	Color Coding	* pF/ft.	* pF/m	** pF/ft.	** pF/m
Z-Fold  Beldfoil® 100% Shield Coverage	**8787**† 80C	10 4 shielded	U-500 500	U-152.4 152.4	26.9 27.8	24 (7x32)	.012	.30	.030	.76	.290	7.37	Gray White Blue Green	—	—	—	—
		4 shielded				24 (7x32)	.012	.30					Brown Red Yellow Orange	—	—	—	—
		2 unshielded				22 (7x30)	.015	.38					White Blue	—	—	—	—
Z-Fold  Beldfoil 100% Shield Coverage	**8786**† 80C	6 4 shielded	100 U-500 500	30.5 U-152.4 152.4	3.7 16.7 17.5	24 (7x32)	.015	.38	.028	.71	.236	5.99	Black Green Red Yellow	—	—	—	—
		2 unshielded				22 (7x30)	.015	.38					Blue White				
						Product Description: Tinned copper, PVC insulated, conductors cabled, 4 conductors cabled under Beldfoil aluminum-polyester shield, 2 conductors unshielded, 22 AWG stranded tinned copper drain wire, chrome PVC jacket. Suggested working voltage: 350.											

22 Gage Stranded Conductors—Beldfoil (7x30)

Description	Trade & U.L. Style Number	No. of Cond.	ft.	m	Std. Unit Lbs. ea.	AWG (Stranding)	Ins. Inch	Ins. mm	Jacket Inch	Jacket mm	O.D. Inch	O.D. mm	Color Coding	* pF/ft.	* pF/m	** pF/ft.	** pF/m
Beldfoil 100% Shield Coverage	**9685**† Ⓤ LISTED **E-34972** 60C	3 2 shielded 1 unshielded	U-500 U-1000	U-152.4 U-304.8	12.4 23.5	22 (7x30)	.013	.33	.032	.81	.199	5.05	Black White Brown	60	197	99	325
							.013	.33						(Pair Only)			
						Product Description: Tinned copper, PVC insulated, 1 pair Beldfoil aluminum-polyester shielded, 22 AWG stranded tinned copper drain wire, pair and single cabled, chrome PVC jacket. Power limited circuit cable class 2 NEC article 725. Suggested working voltage: 150.											
Z-Fold Beldfoil 100% Shield Coverage	**8733** 80C	3 shielded	100 U-500 500	30.5 U-152.4 152.4	3.0 13.0 13.7	22 (7x30)	.014	.36	.030	.76	.205	5.21	Black Red Clear	—	—	50	164
						Product Description: Tinned copper, polyethylene insulated, each conductor separately Beldfoil aluminum-polyester shielded, drain wire for each conductor is tinned cadmium bronze ribbon under Beldfoil, conductors cabled, chrome PVC jacket. Suggested working voltage: 350.											
Shorting Fold Beldfoil 100% Shield Coverage	**8728** Ⓡ 2717 80C	4 2 pair	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	14.5 15.0 28.0 28.6	22 (7x30)	.008	.20	.030	.76	.206	5.23	Red Black Green White	35	115	62	203
						Product Description: Tinned copper, polypropylene insulated, conductors cabled in pairs, each pair Beldfoil aluminum-polyester shielded with 24 AWG stranded tinned copper drain wire, polyester film over each shield, overall Beldfoil aluminum-polyester shield and 24 AWG stranded tinned copper drain wire, chrome PVC jacket. Pairs cabled on common axis to reduce diameter.∅											
Z-Fold  Beldfoil 100% Shield Coverage	**8730** 80C	4 2 shielded 2 unshielded	U-1000 1000	U-304.8 304.8	23.5 24.4	22 (7x30)	.008	.20	.030	.76	.205	5.21	Red Black Green White	34	111	67	220
						Product Description: Tinned copper, polypropylene insulated, Beldfoil aluminum-polyester shield over 1 pair with 24 AWG stranded tinned copper drain wire, chrome PVC jacket. Pairs cabled on separate axis for reduced magnetic coupling. Suggested working voltage: 200.											

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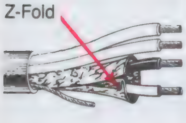
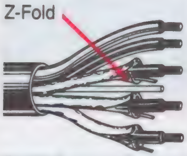
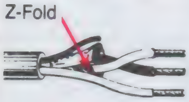
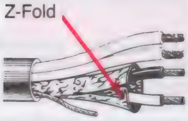
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
†Passes the VW-1 Vertical Wire Flame Test.
∅Request Technical Data Bulletin T/8-21 before planning high and low level circuits in the same cable.

Special Audio, Communication and Instrumentation Cables

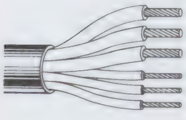
22 Gage (cont'd.)
Stranded Conductors (7x30)

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m
Z-Fold  Beldfoil® 100% Shield Coverage	**8724†** 80C	4 2 shielded 2 unshielded	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	10.2 10.4 20.3 21.0	22 (7x30)	.008	.20	.019	.48	.165	4.19	Red Black Green White	34	111	67	220
						Product Description: Tinned copper, polypropylene insulated, Beldfoil aluminum-polyester shield over red and black conductors, 24 AWG, stranded tinned copper drain wire, chrome PVC jacket. Pairs cabled on common axis to reduce diameter.∅ Suggested working voltage: 200.											
Z-Fold  Beldfoil 100% Shield Coverage	**8788** 80C	5 3 shielded 2 unshielded	500	152.4	17.3	22 (7x30)	.015	.38	.028	.71	.236	5.99	Black Red Green Yellow Blue	—	—	125	410
						Product Description: Tinned copper, PVC insulated, black, red and green conductors each separately Beldfoil shielded, drain wire for each conductor is tinned cadmium bronze ribbon under Beldfoil. 2 conductors unshielded, cabled around a non-hygroscopic filler, chrome PVC jacket. Suggested working voltage: 350.											

20 Gage Stranded Conductors (7x28)

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m
Z-Fold  Beldfoil 100% Shield Coverage	**8763** 80C	3 2 shielded 1 unshielded	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	14.3 14.9 27.5 28.3	20 (7x28)	.014	.36	.028	.71	.210	5.33	Black Red Clear	26	85	48	157
						Product Description: Tinned copper, polyethylene insulated, conductors cabled, Beldfoil aluminum-polyester shield over red and black conductors, 20 AWG stranded tinned copper drain wire, chrome PVC jacket. Suggested working voltage: 350.											
Z-Fold  Beldfoil 100% Shield Coverage	**8722†** 80C	4 2 shielded 2 unshielded	U-500 White	U-152.4	17.4	20 (7x28)	.015	.38	.028	.71	.226	5.74	Red Black Green White	60	197	99	324
			U-500 Chrome	U-152.4	17.4	**Product Description:** Tinned copper, PVC insulated, Beldfoil aluminum-polyester shield over red and black conductors, 22 AWG stranded tinned copper drain wire, chrome or white PVC jacket. Pairs cabled on common axis to reduce diameter.∅ Suggested working voltage: 350.											
			500 White	152.4	18.0												
			500 Chrome	152.4	18.0												
			U-1000 White	U-304.8	34.7												
			U-1000 Chrome	U-304.8	34.7												
			1000 White	304.8	33.9												
			1000 Chrome	304.8	33.9												

20 and 16 Gage Stranded Conductors (10x30 and 26x30)

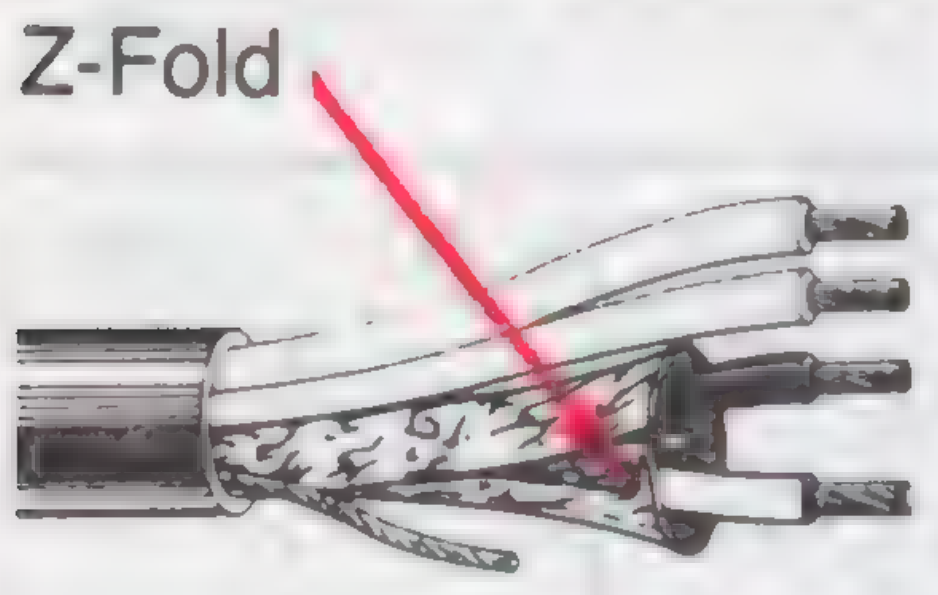
Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m
	**9686** ⓊL LISTED **E-34972** 60C	6 3 unshielded 3 unshielded	U-500 1000	U-152.4 304.8	31.3 66.6	20 (10x30)	.012	.30	.032	.81	.295	7.49	Green Blue Purple	—	—	—	—
						16 (26x30)	.023	.58					Black Red Yellow				
						Product Description: Tinned copper, PVC insulation, conductor cabled, PVC jacket. Power limited circuit cable class 2 NEC article 725. Suggested working voltage: 150.											

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductor connected to shield.
†Passes the VW-1 Vertical Wire Flame Test.
∅Request Technical Data Bulletin T/8-21 before planning high and low level circuits in same cable.

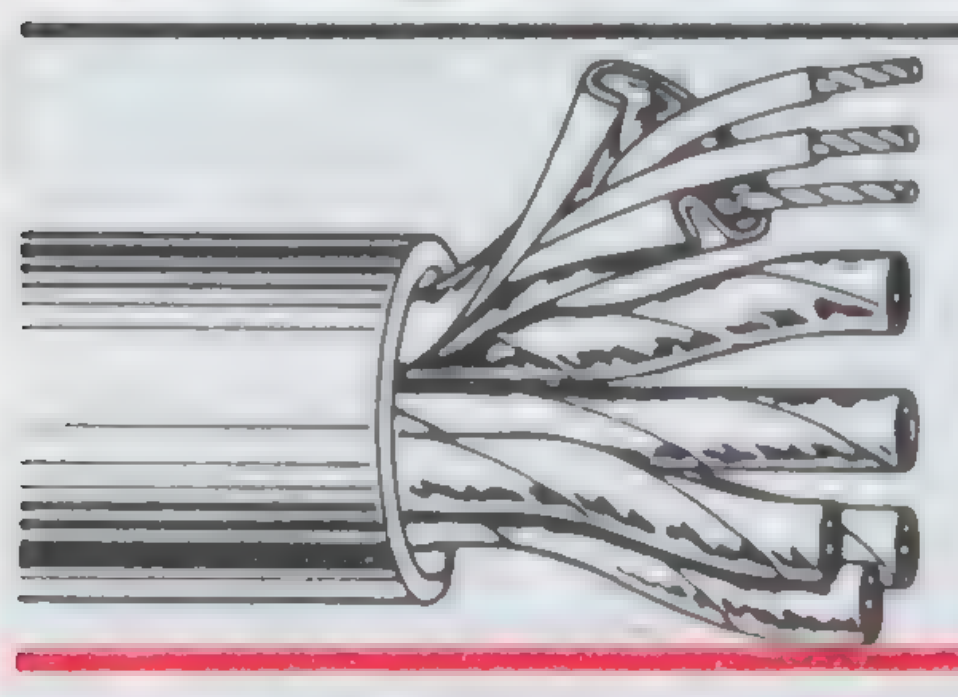
Special Audio, Communication and Instrumentation Cables

Description	Trade & U.L. Style Number	No. of Cond	Standard Lengths		Std. Unit Lbs ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m

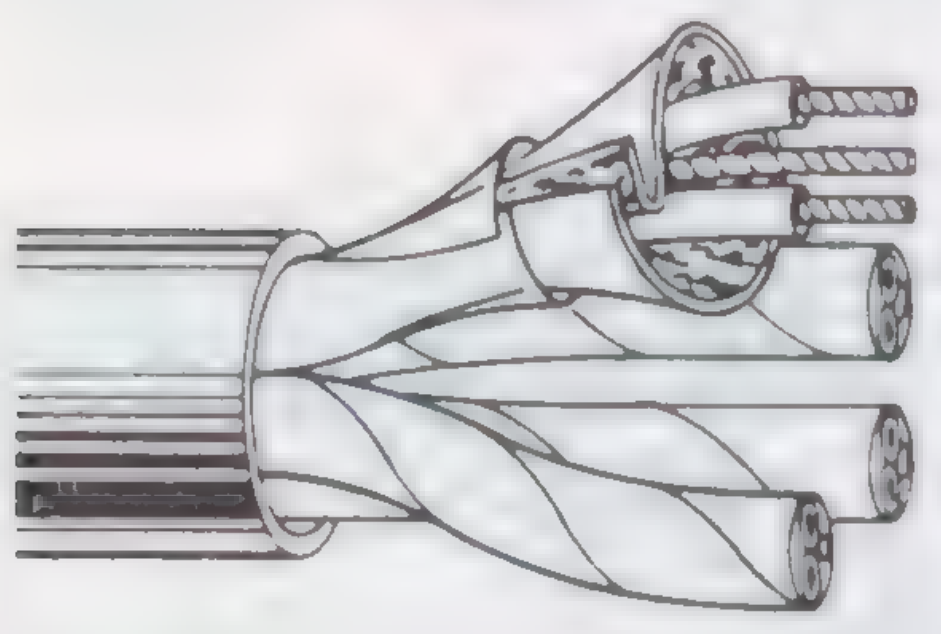
20 and 18 Gage Stranded Conductors (7x28 and 16x30)

Description	Trade & U.L. Style Number	No. of Cond	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs ea.	AWG (Stranding)	Insulation Inch	Insulation mm	Jacket Inch	Jacket mm	Nominal O.D. Inch	Nominal O.D. mm	Color Coding	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil® 100% Shield Coverage	**9155** UL 2094 300V 60C	4 2 shielded 2 unshielded	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	20.8 21.5 40.5 41.5	20 (7x28)	.018	.46	.031	.79	.256	6.50	Black Red	24	79	46	151
						18 (16x30)	.018	.46					Green Clear	22	72	—	—
						Product Description: Tinned copper, polyethylene insulated, Beldfoil aluminum-polyester shield over 20 AWG black and red twisted pair, 22 AWG stranded tinned copper drain wire, beige PVC jacket.∅											

24 Gage Stranded Conductors (7x32)

Description	Trade & U.L. Style Number	No. of Cond	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs ea.	AWG (Stranding)	Insulation Inch	Insulation mm	Jacket Inch	Jacket mm	Nominal O.D. Inch	Nominal O.D. mm	Color Coding	* pF/ft.	* pF/m	** pF/ft.	** pF/m
	**9784†** 80C	12 6 pair	500 1000	152.4 304.8	43.6 84.1	24 (7x32)	.023	.58	.037	.94	.454	11.53	Chart No. 3 Technical Section	12.5	41	22	72
						Product Description: Tinned copper, foam polypropylene insulated, conductors cabled, each pair individually Beldfoil shielded with 24 AWG stranded tinned copper drain wire, chrome PVC jacket. Suggested working voltage: 60.											

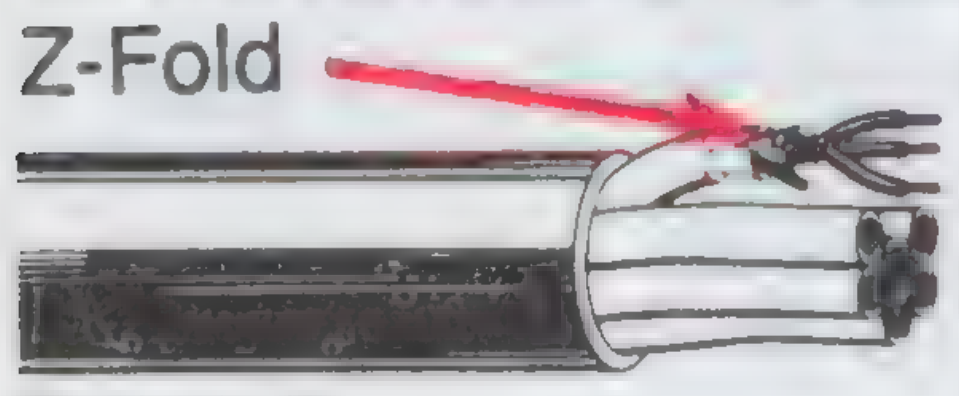
20 Gage Stranded Conductors (7x28)

Description	Trade & U.L. Style Number	No. of Cond	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs ea.	AWG (Stranding)	Insulation Inch	Insulation mm	Jacket Inch	Jacket mm	Nominal O.D. Inch	Nominal O.D. mm	Color Coding	* pF/ft.	* pF/m	** pF/ft.	** pF/m
Shorting Fold  Beldfoil 100% Shield Coverage	**8725†** 105C	8 4 pair	500 1000	152.4 304.8	37.5 78.2	20 (7x28)	.015	.38	.030	.76	.345	8.76	Red Black Green White White/Red White/Black White/Green White/Yellow	27	89	49	161
						Product Description: Tinned copper conductors, polypropylene insulated, four groups of two conductors with 22 AWG stranded tinned copper drain wire, each group individually Beldfoil shielded with polyester tape wrap, chrome PVC jacket. Cabled around a common axis.∅ Suggested working voltage: 400.											

Beldfoil Triplets

22 Gage
Stranded Conductors (7x30)

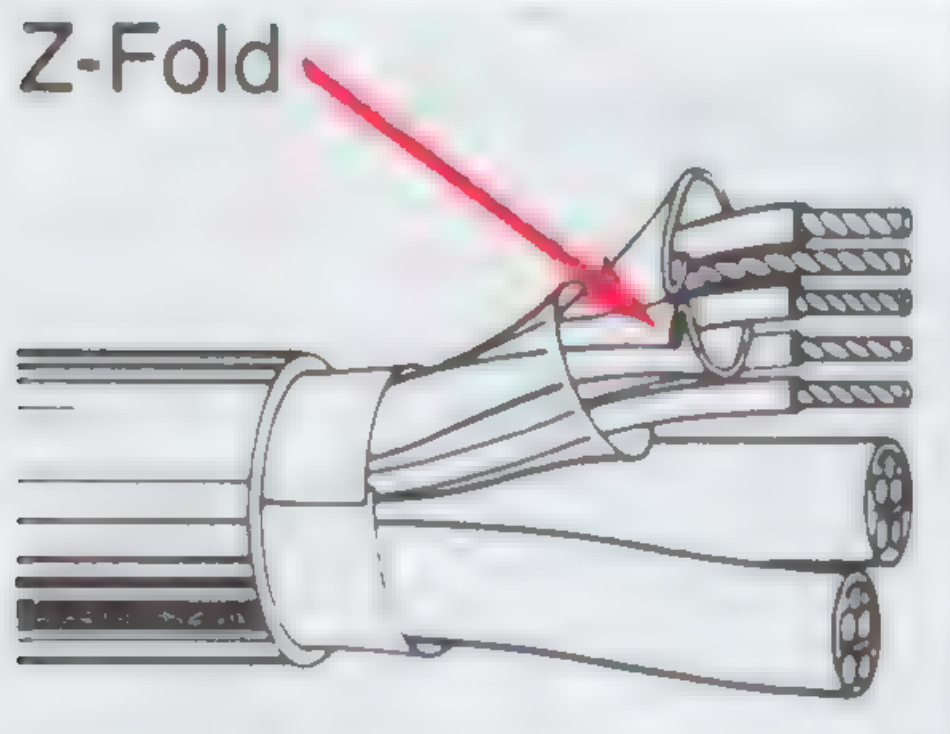
Product Description
Tinned copper, polypropylene insulated, conductors cabled in triplets, each shielded with Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, with .020″ white PVC jacket. Individual triplet jackets identified by color-coded stripes, triplets cabled, overall chrome PVC jacket. Suggested working voltage: 300.

Description	Trade & U.L. Style Number	No. of Cond	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs ea.	AWG (Stranding)	Insulation Inch	Insulation mm	Jacket Inch	Jacket mm	Nominal O.D. Inch	Nominal O.D. mm	Color Coding	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil 100% Shield Coverage 80C	**9771†**	21 7 triplets	500	152.4	84.5	(7x30)	.008	.20	.045	1.14	.550	13.97	Black Red Green	34	111	67	220
	9772†	36 12 triplets	500	152.4	143.5	(7x30)	.008	.20	.060	1.52	.725	18.41	Black Red Green	34	111	67	220

Beldfoil Quads

22 Gage
Stranded Conductors (7x30)

Product Description
Tinned copper, polypropylene insulated, cabled in quads, Beldfoil shield over black and red conductors, 24 AWG stranded tinned copper drain wire. Each quad is 8724 (on page 48) except for foil and drain wire positioning (inside instead of out), and clear polyester tape instead of a PVC jacket. Shields color coded, overall chrome PVC jacket. Suggested working voltage: 200.

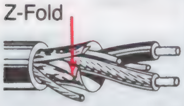
Description	Trade & U.L. Style Number	No. of Cond	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs ea.	AWG (Stranding)	Insulation Inch	Insulation mm	Jacket Inch	Jacket mm	Nominal O.D. Inch	Nominal O.D. mm	Color Coding	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Beldfoil 100% Shield Coverage 80C	**8726†**	12 3 quads	500 1000	152.4 304.8	31.4 66.5	(7x30)	.008	.20	.035	.89	.330	8.38	Red Black Green White	34	111	66	216
						Cabled around common axis.∅											
	8727†	28 7 quads	500 1000	152.4 304.8	65.9 129.9	(7x30)	.008	.20	.040	1.02	.435	11.05	Red Black Green White	34	111	66	216
						Cabled around common axis.∅											

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductor connected to shield.
†Passes the VW-1 Vertical Wire Flame Test.
∅Request Technical Bulletin T/8-21 and T/8-9 before planning high and low level circuits in same cable.

Thermocouple Extension Wire U.L. Subject 13 105C-300V PLTC

PVC Insulated and Jacketed (Twisted Shielded)

Product Description
Solid conductor (see type designation chart for conductor type), PVC insulated conductors cabled, Beldfoil® aluminum-polyester shield, 18 AWG stranded tinned copper drain wire. Nylon ripcord to facilitate stripping. PVC jacket.

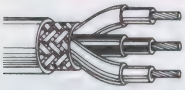
Description	Type	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding
				ft.	m			Inch	mm	Inch	mm	Inch	mm	
Z-Fold  **E-34972**	JX	**9661**	2	500 1000	152.4 304.8	21.8 42.2	16 (Solid)	.017	.43	.037	.94	.250	6.35	See Type Chart Below
	KX	**9662**	2	500 1000	152.4 304.8	22.2 42.8	16 (Solid)	.017	.43	.037	.94	.250	6.35	See Type Chart Below
	EX	**9663**	2	500 1000	152.4 304.8	22.2 40.9	16 (Solid)	.017	.43	.037	.94	.250	6.35	See Type Chart Below
	TX	**9664**	2	500 1000	152.4 304.8	22.3 43.0	16 (Solid)	.017	.43	.037	.94	.250	6.35	See Type Chart Below

	ASA Type	Alloys		Insulation Colors		Jacket Color
		Positive	Negative	Positive	Negative	
Thermocouple Extension Wire Type Designations	EX	Chromel	Constantan	Purple	Red	Purple
	JX	Iron	Constantan	White	Red	Black
	KX	Chromel	Alumel	Yellow	Red	Yellow
	TX	Copper	Constantan	Blue	Red	Blue

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
See also High Temperature Thermocouple Extension Wire on pages 152 and 153.

MIL-W-16878D (Type B) Conductors, Shielded and Jacketed⊗

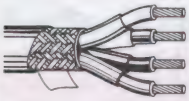
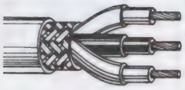
Communication and Instrumentation Cables

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m
22 Gage Stranded Conductors (19x34)																	
 Braid Shield 90% Shield Coverage 105C	**9965†**	1	100 500 1000	30.5 152.4 304.8	1.3 5.3 10.0	(19x34)	.010	.25	.010	.25	.100	2.54	White	—	—	100	328
						Product Description: Stranded tinned copper, PVC insulated, clear nylon jacket, tinned copper braid shield, white PVC jacket. Nominal nylon thickness .003 inch (.08 mm). Suggested working voltage: 600.											
	9966†	2	100 500 1000	30.5 152.4 304.8	2.5 10.5 21.3	(19x34)	.010	.25	.020	.51	.176	4.47	White Black	51	167	87	285
						Product Description: Stranded tinned copper, PVC insulated, clear nylon jacket, conductors cabled, tinned copper braid shield, white PVC jacket. Nominal nylon thickness .003 inch (.08 mm). Suggested working voltage: 600.											
	9967†	3	100 500 1000	30.5 152.4 304.8	2.9 13.1 26.5	(19x34)	.010	.25	.020	.51	.184	4.67	White Black Red	45	148	88	289
						Product Description: Stranded tinned copper, PVC insulated, clear nylon jacket, conductors cabled, tinned copper braid shield, white PVC jacket. Nominal nylon thickness .003 inch (.08 mm). Suggested working voltage: 600.											
	9968†	4	100 500 1000	30.5 152.4 304.8	3.5 16.5 31.4	(19x34)	.010	.25	.020	.51	.200	5.08	White Black Red Green	42	138	69	226
						Product Description: Stranded tinned copper, PVC insulated, clear nylon jacket, conductors cabled, tinned copper braid shield, white PVC jacket. Nominal nylon thickness .003 inch (.08 mm). Suggested working voltage: 600.											
20 Gage Stranded Conductors (19x32)																	
 Braid Shield 90% Shield Coverage 105C	**9961†**	1	100 500 1000	30.5 152.4 304.8	1.6 6.6 12.7	(19x32)	.010	.25	.010	.25	.109	2.77	White	—	—	102	335
						Product Description: Stranded tinned copper, PVC insulated, clear nylon jacket, tinned copper braid shield, white PVC jacket. Nominal nylon thickness .003 inch (.08 mm). Suggested working voltage: 600.											
	9962†	2	100 500 1000	30.5 152.4 304.8	3.0 13.8 26.2	(19x32)	.010	.25	.020	.51	.192	4.88	White Black	53	174	91	299
						Product Description: Stranded tinned copper, PVC insulated, clear nylon jacket, conductors cabled, tinned copper braid shield, white PVC jacket. Nominal nylon thickness .003 inch (.08 mm). Suggested working voltage: 600.											
	9963†	3	100 500 1000	30.5 152.4 304.8	3.6 17.5 33.5	(19x32)	.010	.25	.020	.51	.202	5.13	White Black Red	49	161	84	276
						Product Description: Stranded tinned copper, PVC insulated, clear nylon jacket, conductors cabled, tinned copper braid shield, white PVC jacket. Nominal nylon thickness .003 inch (.08 mm). Suggested working voltage: 600.											

†Passes the VW-1 Vertical Wire Flame Test.
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
⊗Manufactured to Government specifications. Shielded and jacketed versions are made to MIL-W-16878 Rev D.

MIL-W-16878D (Type B) Conductors, Shielded and Jacketed⊗

Communication and Instrumentation Cables

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m
20 Gage Stranded Conductors (19x32)																	
 Braid Shield 90% Shield Coverage	**9964†** 105C	4	100 500 1000	30.5 152.4 304.8	4.3 20.7 40.0	(19x32)	.010	.25	.020	.51	.212	5.38	White Black Red Green	40	131	75	246
						Product Description: Stranded tinned copper, PVC insulated, clear nylon jacket, conductors cabled, tinned copper braid shield, white PVC jacket. Nominal nylon thickness .003 inch (.08 mm). Suggested working voltage: 600.											
16 Gage Stranded Conductors (19x29)																	
 Braid Shield 90% Shield Coverage 105C	**9951†**	1	100 500 1000	30.5 152.4 304.8	2.5 10.5 21.2	(19x29)	.010	.25	.016	.41	.141	3.58	White	—	—	138	453
						Product Description: Stranded tinned copper, PVC insulated, clear nylon jacket, tinned copper braid shield, white PVC jacket. Nominal nylon thickness .004 inch (.08 mm). Suggested working voltage: 600.											
	9952†	2	100 500 1000	30.5 152.4 304.8	4.5 21.4 41.2	(19x29)	.010	.25	.025	.64	.243	6.17	White Black	57	187	95	312
						Product Description: Stranded tinned copper, PVC insulated, clear nylon jacket, conductors cabled, tinned copper braid shield, white PVC jacket. Nominal nylon thickness .004 inch (.08 mm). Suggested working voltage: 600.											
	9953†	3	100 500 1000	30.5 152.4 304.8	5.7 27.3 53.2	(19x29)	.010	.25	.025	.64	.254	6.45	White Black Red	58	190	101	331
						Product Description: Stranded tinned copper, PVC insulated, clear nylon jacket, conductors cabled, tinned copper braid shield, white PVC jacket. Nominal nylon thickness .004 inch (.08 mm). Suggested working voltage: 600.											
	9954†	4	100 500 1000	30.5 152.4 304.8	7.0 33.4 65.2	(19x29)	.010	.25	.023	.58	.275	6.98	White Black Red Green	49	161	94	308
						Product Description: Stranded tinned copper, PVC insulated, clear nylon jacket, conductors cabled, tinned copper braid shield, white PVC jacket. Nominal nylon thickness .004 inch (.08 mm). Suggested working voltage: 600.											

⊗Manufactured to Government specifications. Shielded and jacketed versions are made to Mil-W-16878 Rev D.

†Passes the VW-1 Vertical Wire Flame Test.

*Capacitance between conductors.

**Capacitance between 1 conductor and other conductors connected to shield.

General Line and Convenience Packaged Products

- **Dealer Sales and Service**
- **Installation and Maintenance**
- **Test Applications**

With Belden Convenience Packs and Products, the emphasis is on over-the-counter sales, service and test applications. It's also on packaging, portability, handling convenience, and installation ease. While some of the wire and cable products in this section come in standard put-ups, others are available in Belden's convenient UNREEL® and CONVERT-A-PAK™ dispensing cartons.

The cables in this section are organized as follows:

	Page(s)
1. Microphone Cables	197 – 200
2. Retractile Cables	201 – 204
3. Hook-Up Wire on Racks	205
4. Magnet Wire	205
5. Twin Lead Cables	206 – 208
6. Antenna Rotor Cables	208 – 210
7. Coaxial TV and Amateur Radio Cables	210
8. Aluminum Ground Wire	211
9. Antenna Wire	211
10. Audio Connecting Cables	212
11. Portable Cordage	213 – 217
12. Speaker Wire and Zip Cord	218 & 219
13. Shielding and Bonding Cables	220
14. Bus Bar Wire	221
15. High Voltage Leads	221 & 222
16. Test Prod Wire	222 & 223
17. Duplex Primary Wire	223

Packaging

Belden's unique UNREEL® cable dispenser is available for many of the cables listed in this section. The letter "U" before the specified put-up length denotes UNREEL packaging.

Belden's Convert-A-Pak™ dispenser is also available for selected twin-lead and rotor cables listed in this section. The letter "T" before the specified put-up length denotes Convert-A-Pak™ packaging.

Microphone Cables

Belden microphone cables are designed for flexibility, service and reliable signal transmission at audio frequencies. They are not only used for microphones, but also for home entertainment equipment, musical instruments, tape recorders, and shielded power supplies.

Shielded single-conductor cables are used in high impedance systems, while multiple-conductor cables are generally used in low impedance applications.

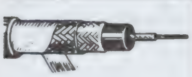
All cables are precision engineered to transmit clear signals, while cancelling out hum and cross-talk interference. They're especially designed to withstand the flexing and normal abuse of studio, laboratory and home usage.

Plastic Cables Recommended for: Lower capacitance, lower loss, greater ozone and oil resistance, lighter weight, smaller diameter.
Rubber Cables Recommended for: Greater abrasion and impact resistance and extra limpness so cable will lie flat on stage or studio floor.
Neoprene and Hypalon Cables Recommended for: Outside use, cold weather applications. Resistant to effects of sun, oil and ozone.

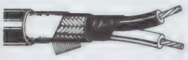
Rubber, Hypalon® or Neoprene Jacketed

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m

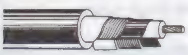
25 Gage
Stranded Conductors (7x33)

Description	Trade & U.L. Style Number	No. of Cond.	ft.	m	Std. Unit Lbs. ea.	(Stranding)	Ins. Inch	Ins. mm	Jacket Inch	Jacket mm	O.D. Inch	O.D. mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Single Conductor	**8410** 60C	1	25 50 100 250 U-500 500	7.6 15.2 30.5 76.2 U-152.4 152.4	1.2 2.1 3.9 9.0 17.5 18.3	(7x33)	.058	1.47	.030	.76	.245	6.22	—	—	36	118
						Product Description: 3 strands copper, 4 strands tinned copper-covered steel, rayon braid, rubber insulated, rayon braid, tinned copper braid shield, cotton yarn wrap, black EPDM rubber jacket. Impedance (ohms): 52.80% shield coverage. Suggested working voltage: 3000 DC.										

24 Gage
Stranded Conductors (45x40)

Description	Trade & U.L. Style Number	No. of Cond.	ft.	m	Std. Unit Lbs. ea.	(Stranding)	Ins. Inch	Ins. mm	Jacket Inch	Jacket mm	O.D. Inch	O.D. mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Miniature Conductor 60C	**New** **8413**	2	15 25 50 100 250 U-500 500	4.6 7.6 15.2 30.5 76.2 U-152.4 152.4	.42 .62 1.40 2.50 5.90 11.60 11.30	(45x40)	.017	.43	.025	.64	.199	5.05	36	118	65	213
						Product Description: Tinned cadmium bronze, cotton serve, rubber insulated, cabled with fillers, 100% coverage conductive textile-wrap shield, 57% tinned-copper braid shield, cotton spiral, EPDM jacket. 100% shield coverage. Color code: White, Black. Suggested working voltage: 300. Jacket colors: Black, Red, Yellow and Blue.										
	8406	3	100 U-500 500	30.5 U-152.4 152.4	3.3 15.4 16.0	(45x40)	.017	.43	.025	.64	.223	5.66	40	131	70	230
						Product Description: Tinned cadmium bronze, cotton serve, rubber insulated, cabled with fillers, 100% coverage conductive textile wrap shield, 60% tinned-copper braid shield, cotton spiral, black EPDM rubber jacket. 100% shield coverage. Color code: Black, Red, White. Suggested working voltage: 300.										
	9399	2	100 500 1000	30.5 152.4 304.8	2.9 13.2 25.0	(45x40)	.017	.43	.025	.64	.195	4.95	30	98	75	246
						Product Description: Bare cadmium copper conductor, cotton serve, rubber insulated, cabled with fillers, 100% coverage conductive textile wrap shield, 66% tinned-copper braid shield, cotton spiral, brown EPDM rubber jacket. 100% shield coverage. Color code: Blue, Red. Suggested working voltage: 300.										

20 Gage
Stranded Conductors (26x34)

Description	Trade & U.L. Style Number	No. of Cond.	ft.	m	Std. Unit Lbs. ea.	(Stranding)	Ins. Inch	Ins. mm	Jacket Inch	Jacket mm	O.D. Inch	O.D. mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 60C	**9394**	1	500 1000	152.4 304.8	13.6 25.7	(26x34)	.030	.76	.035	.89	.190	4.83	—	—	55	180
						Product Description: Tinned-copper conductor, rubber insulated, 100% coverage conductive textile shield, tinned-copper spiral shield, 95% coverage, paper tape black neoprene jacket.										
	9778	1	100 500 1000	30.5 152.4 304.8	4.0 18.4 35.2	(26x34)	.040	1.016	.048	1.22	.235	5.97	—	—	45	148
						Product Description: Tinned-copper conductor, rubber insulated, 100% coverage conductive textile shield, tinned-copper spiral shield, 76% coverage, paper tape black neoprene jacket.										

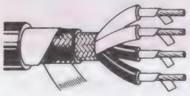
*Capacitance between conductors.
**Capacitance between 1 conductor and remaining conductors (if any) connected to shield.
®DuPont trademark

Microphone Cables

Rubber, Hypalon® or Neoprene Jacketed

20 Gage (cont'd.)
Stranded Conductors (26x34)

Product Description
Tinned-copper, cotton-wrap, rubber-insulated, conductors cabled, rayon braid, tinned-copper braid shield, cotton wrap, jacket. 85% shield coverage. Color code: (1) White, (2) Black, (3) Red, (4) Green, (5) Blue, (6) Brown, (7) Yellow, (8) Orange. Suggested working voltage: 600.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 Multiple Conductor 60C	**New 8412**	2	25 50 100 250 U-500 500 U-1000 1000	7.6 15.2 30.5 76.2 U-152.4 152.4 U-304.8 304.8	1.5 2.6 4.5 11.1 21.6 22.4 42.3 43.3	(26x34)	.020	.51	.041	1.04	.262	6.65	30	98	55	180
						EPDM jacket colors: Black, Red, Yellow and Blue.										
	8402†	2	100 250 U-500 500 U-1000	30.5 76.2 U-152.4 152.4 U-304.8	5.0 11.8 23.1 24.0 45.4	(26x34)	.020	.51	.039	.99	.263	6.68	30	98	55	180
						Brown Hypalon jacket.										
	8423	3	100 250 500 1000	30.5 76.2 152.4 304.8	5.2 13.1 24.7 50.7	(26x34)	.020	.51	.040	1.02	.272	6.91	30	98	55	180
						Black EPDM rubber jacket.										
	8424∅	4	50 100 U-250 250 U-500 500 1000	15.2 30.5 U-76.2 76.2 U-152.4 152.4 304.8	3.2 6.3 15.1 15.7 29.1 30.0 60.1	(26x34)	.020	.51	.041	1.04	.294	7.47	30	98	55	180
						Black EPDM rubber jacket.										
	8425	5	100 250	30.5 76.2	7.3 18.1	(26x34)	.020	.51	.041	1.04	.318	8.08	30	98	55	180
						Black EPDM rubber jacket.										
	8426	6	100 250	30.5 76.2	8.1 20.1	(26x34)	.020	.51	.038	.97	.344	8.74	30	98	55	180
						Black EPDM rubber jacket.										
	8427	7	100 250	30.5 76.2	8.8 23.0	(26x34)	.020	.51	.043	1.09	.355	9.02	30	98	55	180
						Black EPDM rubber jacket.										
	8418	8	100 250	30.5 76.2	10.1 25.2	(26x34)	.020	.51	.043	1.09	.381	9.68	30	98	55	180
						Black EPDM rubber jacket.										

18 Gage
Stranded Conductors (41x34)

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
60C	**9395**	1	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	18.4 19.0 35.8 36.6	(41x34)	.045	1.14	.040	1.02	.235	5.97	—	—	55	180
						Product Description: Tinned-copper conductor, rubber-insulated, 100% coverage conductive textile shield, tinned-copper spiral shield. 71% coverage, paper tape, black neoprene jacket.										
	8428	2	100 U-500 500 1000	30.5 U-152.4 152.4 304.8	6.1 28.5 28.3 59.9	(41x34)	.022	.56	.035	.89	.290	7.37	40	131	70	230
						Product Description: Tinned-copper, cotton wrap, rubber-insulated, conductors cabled, rayon braid, tinned-copper braid shield, cotton wrap, black neoprene jacket. 85% shield coverage. Suggested working voltage: 600.										

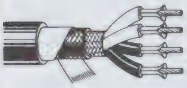
®DuPont trademark
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
†Passes the VW-1 Vertical Wire Flame Test.
∅Send for Technical Bulletin T/8-9.

Microphone Cables

Neoprene Jacketed

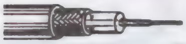
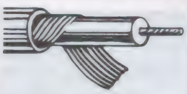
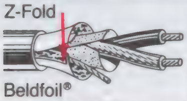
16 Gage
Stranded Conductors (65x34)

Product Description
Tinned copper, paper wrap, rubber-insulated, conductors cabled, rayon braid, tinned-copper braid shield, cotton wrap. 85% shield coverage. Suggested working voltage: 600.

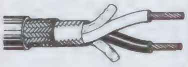
Description	Trade & U.L. Style Number	No of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
 60C	**8408**†	2	100 500	30.5 152.4	9.1 43.4	(65x34)	.037	.94	.040	1.02	.380	9.65	36	118	65	213
						Brown Hypalon jacket—Heavy Duty. Color code: Black, White.										
	8407†∅	4	100 250	30.5 76.2	13.4 31.1	(65x34)	.037	.94	.043	1.09	.416	10.57	36	118	65	213
						Black Neoprene jacket. Color code: Black, White, Red, Green.										

PVC Jacketed

25 Gage Stranded Conductors (7x33)

 Single Conductor 80C	**8411**	1	50 100 250 U-500 500 U-1000 1000	15.2 30.5 76.2 U-152.4 152.4 U-304.8 304.8	.7 1.6 3.7 7.1 6.8 13.3 13.9	(7x33)	.020	.51	.020	.51	.144	3.66	—	—	40	130
						Product Description: 3 strands tinned copper, 4 strands tinned-copper covered steel, braided textile, polyethylene insulated, tinned-copper braid shield, chrome PVC jacket. 74% shield coverage. Suggested working voltage: 3500 DC.										
	8401 ♦	1	15 25 50 100 250 U-500 500 U-1000 1000	4.6 7.6 15.2 30.5 76.2 U-152.4 152.4 U-304.8 304.8	.4 .62 1.45 2.6 6.0 11.4 12.2 21.8 22.6	(7x33)	.043	1.09	.025	.64	.199	5.05	—	—	28	92
						Product Description: 3 strands tinned copper, 4 strands tinned-copper covered steel, braided textile, polyethylene insulated, tinned-copper braid shield, chrome PVC jacket. 74% shield coverage. Suggested working voltage: 5000 DC.										
	**9396** 75C	1	100 250	30.5 76.2	1.2 2.5	(7x33)	.017	.43	.017	.43	.100	2.54	—	—	75	246
						Product Description: 3 strands tinned copper, 4 strands tinned-copper covered steel, PVC insulation. Tinned-copper spiral shield. 90% coverage, matte gray PVC jacket. Suggested working voltage: 1000 DC.										
 Beldfoil® 100% Shield Coverage	**9211** 80C	2	500 1000	152.4 304.8	15.4 29.3	(7x33)	.030	.76	.036	.91	.247	6.27	12.2	40	—	—
						Product Description: Tinned copper, stranded conductors, polyethylene insulated, cabled with conductive tape, overall Beldfoil shield with stranded 22 AWG tinned-copper drain wire, PVC jacket. 100% shield coverage. Conductor: White, Blue. Jacket: Light Blue or Black. Suggested working voltage: 600 Impedance: 124 ohm.										

24 Gage Stranded Conductors (45x40 and 105x44)

 Miniature Conductor 80C	**8420**†	2	50 100 250 U-500 500	15.2 30.5 76.2 U-152.4 152.4	1.3 2.4 5.3 9.7 10.0	(45x40)	.014	.36	.020	.51	.185	4.70	20	66	35	115
						Product Description: Tinned cadmium bronze, polyethylene insulated, cabled with fillers, rayon braid, tinned-copper braid shield, chrome PVC jacket. 71% shield coverage. Color code: Clear, Black. Suggested working voltage: 500.										
	9397	2	100 500 1000	30.5 152.4 304.8	2.6 11.1 22.4	(105x44)	.012	.30	.031	.79	.176	4.48	40	131	110	361
						Product Description: Bare copper, PVC insulated, conductors cabled with fillers, bare copper spiral shield, matte gray, matte black or matte white PVC jacket. Color code: White, Green. Suggested working voltage: 300.										
	9398	3	100 500 1000	30.5 152.4 304.8	2.8 12.4 25.4	(105x44)	.012	.30	.030	.76	.185	4.70	40	131	110	361
						Product Description: Bare copper PVC insulated, conductors cabled with fillers, bare copper spiral shield, matte gray, matte black or matte white PVC jacket. Color code: White, Green, Brown. Suggested working voltage: 300.										

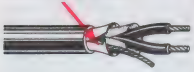
*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors connected to shield.
†Passes the VW-1 Vertical Wire Flame Test.
∅Send for Technical Bulletin T/8-9.
♦ See 8421 on page 212 for spiral wrapped shield version of 8401—Recommended for stereo use.

General Line and Convenience Packaged Products

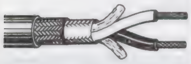
Microphone Cables

PVC Jacketed

24 Gage
Stranded Conductors (19x36)

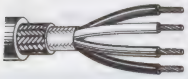
Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft	m			inch	mm	inch	mm	inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
Shorting Fold  Beldfoil® 100% Shield Coverage	**9452** 75C	2	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	1.4 6.3 5.9 11.5 11.3	(19x36)	.008	.20	.020	.51	.135	3.43	30	98	58	190
						Product Description: Tinned copper, polypropylene insulated, twisted pair, noise reducing tape, 24 AWG stranded tinned-copper drain wire, Beldfoil aluminum-polyester shield. Black PVC jacket. 100% shield coverage. Balanced pair instrumentation cable featuring short lay cabling to minimize pick-up of electromagnetic interference and special conductive textile tape to minimize triboelectric noise. Color code: Black, Red. Suggested working voltage: 200.										

22 Gage
Stranded Conductors (16x34)

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft	m			inch	mm	inch	mm	inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
	**8422** 80C	2	50 100 250 U-500 500 U-1000 1000	15.2 30.5 76.2 U-152.4 152.4 U-304.8 304.8	1.9 3.7 8.4 16.4 17.0 31.7 32.6	(16x34)	.021	.53	.022	.56	.229	5.82	20	66	36	118
						Product Description: Tinned copper, polyethylene insulated, conductors cabled, cotton braid, tinned-copper braid shield, chrome PVC jacket. 85% shield coverage. Color code: Clear, Black. Suggested working voltage: 1000.										

20 Gage
Stranded Conductors (26x34)

Product Description
Tinned copper, polyethylene insulated, conductors cabled, rayon braid, tinned-copper braid shield, chrome PVC jacket.

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Capacitance			
			ft	m			inch	mm	inch	mm	inch	mm	* pF/ft.	* pF/m	** pF/ft.	** pF/m
	**8403†** 80C	3	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	5.0 21.5 22.3 42.0 42.9	(26x34)	.015	.38	.033	.84	.244	6.20	25	82	45	148
						89% shield coverage. Color code: Clear, Black, Red. Suggested working voltage: 600.										
	8404†∅ UL 2094 300V 60C	4	100 250 U-500 500 U-1000 1000	30.5 76.2 U-152.4 152.4 U-304.8 304.8	4.9 11.6 22.7 23.4 44.3 45.2	(26x34)	.016	.41	.032	.81	.252	6.40	23	76	40	131
						86% shield coverage. Color code: Clear, Black, Red, Green.										
	8405† UL 2094 300V 60C	5	250 U-500 500 U-1000 1000	76.2 U-152.4 152.4 U-304.8 304.8	15.5 28.8 29.2 56.9 60.9	(26x34)	.016	.41	.035	.89	.281	7.14	23	75.5	40	131
						84% shield coverage. Color code: Clear, Black, Red, Green, Blue.										

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductors (if any) connected to shield.
†Passes the VW-1 Vertical Wire Flame Test.
∅Send for Technical Bulletin T/8-9.

Retractile Cables

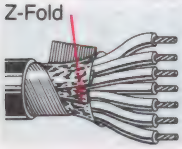
Retractile cords keep telephones and microphone cables from tangling and cluttering desk tops, communications consoles and the front sets of motor vehicles. Belden manufactures a full line of high-quality retractile coiled cord products for a wide number of applications: Used for telephone equipment; ham and citizen band radios; hand and desktop microphones; language lab equipment; musical instruments; computer keyboards; mobile controls and mobile communications equipment, as well as a variety of assorted industrial applications.

Specially designed conductors and shields are constructed to withstand rugged use and minimize the need for frequent replacement.

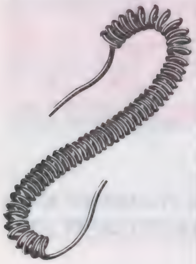
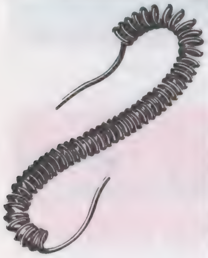
75 ohm Video Coaxial Retractile Cables

Description	Trade & U.L. Style Number	No. of Cond.	Retracted Length		Practical Extended Length		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Coil O.D.	
			Inch	cm	ft.	m			Inch	mm	Inch	mm	Inch	mm	Inch	mm
25 Gage Stranded Conductors (7x33)									**Product Description** Stranded tinned copper conductor, polyethylene insulation. 100% Beldfoil®, tinned copper serve shield. Nominal capacitance 21 pF/ft. (68.9 pF/m). Nickel gray PVC jacket.							
60C	**9447**	1	6	15.24	2	.61	.18	25 (7x33)	.058	1.47	.045	1.14	.242	6.15	1.125	28.6
	9448	1	12	30.48	4	1.22	.35	25 (7x33)	.058	1.47	.045	1.14	.242	6.15	1.125	28.6
	9449	1	24	60.96	8	2.44	.68	25 (7x33)	.058	1.47	.045	1.14	.242	6.15	1.125	28.6

Keyboard Retractile Cables

Description	Trade & U.L. Style Number	No. of Cond.	Retracted Length		Practical Extended Length		Std. Unit Lbs. ea.	AWG (Stranding) Dia. in Inches	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Coil O.D.	
			Inch	cm	ft.	m			Inch	mm	Inch	mm	Inch	mm	Inch	mm
26 Gage Stranded Conductors (10x36)																
	**New 9665** RU 2464 300V 80C	7 overall shield	14.5	36.8	6	1.8	.41	26 (10x36) .46	.010	.25	.061	1.54	.250	6.35	.885	22.5
									Product Description: Tinned copper PVC insulated, overall Beldfoil aluminum-polyester shield plus 90% coverage tinned copper serve shield. Black PVC jacket. 8″ straight portion on one end, 24″ straight portion on the other end. Color code: Black, White, Red, Green, Brown, Blue, Orange.							

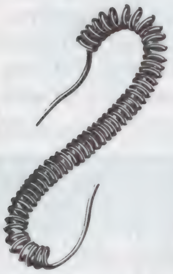
Retractile Cables

Description	Trade & U.L. Style Number	No. of Cond.	Retracted Length		Practical Extended Length		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Coil O.D.	
			Inch	cm	ft.	m			Inch	mm	Inch	mm	Inch	mm	Inch	mm
31 Gage Tinsel																
	**9468**	3 1 shielded 2 un-shielded	20	50.8	8.5	2.59	.14	(tinsel)	.007	.18	.029	.73	.150	3.81	.50	12.7
				1 in a bag					**Product Description:** Solderable tinsel conductors, 3.9 ohms/cord, each conductor polypropylene insulated, spiral tinsel and Beldfoil® aluminum-polyester shield, black PVC jacket. 6″ straight portion at each end cut blunt. Long flex-life. 100% shield coverage. Nominal capacitance of shielded conductor (pF/cord): 900. Color code: Black, White Red.							
	9469	4 un-shielded	20	50.8	8.5	2.59	.14	(tinsel)	.007	.18	.030	.76	.150	3.81	.50	12.7
80C 30V				1 in a bag					**Product Description:** Solderable tinsel conductors, 3.9 ohms/cord, each conductor polypropylene insulated, black PVC jacket. 6″ straight portion at each end cut blunt. Long flex-life. Color code: Black, Yellow, Red, Green.							
28 Gage Stranded Conductors (7x36)																
	**9466**	3 1 shielded 2 un-shielded	11	27.9	6.0	1.8	.13	(7x36)	.005	.13	.050	1.27	.160	4.06	.62	15.88
				1 in a bag					**Product Description:** Tinned copper, nylon insulated, spiral tinned copper shield, black neoprene jacket. 8″ straight portion at each end blunt. 90% shield coverage. Nominal capacitance of shielded conductor (pF/cord): 1000. Color code: Black, Red, White.							
	8409	4 un-shielded	12	30.5	6.0	1.8	.13	(7x36)	.005	.13	.050	1.27	.165	4.19	.56	14.29
				1 in a bag					**Product Description:** Tinned copper, nylon insulated, neoprene jacket. 6″ straight portion at each end cut blunt. Color code: Black, White, Red, Green.							
90C 30V	**9465**	5 1 shielded 4 un-shielded	15	31.8	7.5	2.3	.20	(7x36)	.005	.13	.048	1.22	.175	4.45	.69	17.46
				1 in a bag					**Product Description:** Tinned copper, nylon insulated, spiral shield, paper tape. 8″ straight portion at each end cut blunt. Black neoprene jacket. Nominal capacitance of shielded conductor (pF/cord): 1230. Color code: Black, Red, White, Blue, Yellow.							
	9467	5 1 shielded 4 un-shielded	12	30.5	6.0	1.8	.16	(7x36)	.005	.13	.045	1.14	.175	4.45	.69	17.46
				1 in a bag					**Product Description:** Tinned copper, nylon insulated, spiral tinned copper shield, black neoprene jacket. 8″ straight portion at each end cut blunt. Nominal capacitance of shielded conductor (pF/cord): 1000. Color code: Black, White, Red, Yellow, Blue.							
24 Gage Stranded Conductors (45x40)																
	8499	1 shielded	7.5	19.1	4	1.2	.12	(45x40)	.019	.48	.043	1.09	.170	4.32	.69	17.46
				1 in a bag					**Product Description:** Tinned cadmium bronze, rubber insulated, spiral tinned copper shield, cotton wrap, black neoprene jacket. 6″ straight portion at each end cut blunt. 80% shield coverage. Nominal capacitance of shielded conductor (pF/cord): 385. Color code: White.							
	9499	1 shielded	24.0	61.0	12	3.7	.36	(45x40)	.019	.48	.043	1.09	.170	4.32	.69	17.46
60C 30V				1 in a bag 10 in a box			3.6		**Product Description:** Tinned cadmium bronze, rubber insulated, spiral tinned copper shield cotton wrap, black neoprene jacket. 6″ straight portion at each end cut blunt. 80% shield coverage. Nominal capacitance of shielded conductor (pF/cord): 1000. Color code: White.							

Retractile Cables

23 Gage

Stranded Conductors (21x36)

Description	Trade & U.L. Style Number	No. of Cond.	Retracted Length		Practical Extended Length		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Coil O.D.	
			Inch	cm	ft.	m			Inch	mm	Inch	mm	Inch	mm	Inch	mm
	**9472** 75C 90V	3 1 shielded 2 unshielded	18.0	45.72	7.5	2.3	.38	2-23 (21x36) 1-23 (21x36)	.025 .020	.51	.042	1.07	.250	6.35	.885	22.48
				1 in a bag					**Product Description:** Bare copper, PVC insulated, spiral shield, paper tape 6″ and 9″ tails. Black PVC jacket. Will fit most Astatic, Pace, Turner and Shure Bros. Nominal capacitance of shielded conductor (pF/cord): 900. Color code: White, Black, Red.							
	8497 90C 90V	3 1 shielded 2 unshielded	11.5	29.2	6.0	1.8	.24 12.0	23 (21x36)	.020	.51	.050	1.27	.250	6.35	.885	22.48
				1 in a bag 50 in a box					**Product Description:** 5 strands tinned copper-covered steel, 16 strands tinned copper, rubber insulated, conductive textile wrap shield plus Beldfoil® aluminum-polyester shield with drain wire same as conductors, paper tape, black neoprene jacket. 6″ straight portion at each end cut blunt. 100% shield coverage. Nominal capacitance of shielded conductor (pF/cord): 510. Fits most Astatic, Turner. Color code: White, Black, Red.							
	9417 90C 90V	3 1 shielded 2 unshielded	30.0	76.2	15.0	4.6	.66 9.9	23 (21x36)	.020	.51	.050	1.27	.250	6.35	.885	22.48
				1 in a bag 15 in a box					**Product Description:** 5 strands tinned copper-covered steel, 16 strands tinned copper, rubber insulated, conductive textile wrap shield plus Beldfoil aluminum-polyester shield with drain wire same as conductors, paper tape, black neoprene jacket. 6″ straight portion at each end cut blunt. 100% shield coverage. Nominal capacitance of shielded conductor (pF/cord): 1200. Color code: White, Black, Red.							
	8415 90C 90V	4 unshielded	11.5	29.2	6.0	1.8	.28 14.0	23 (21x36)	.020	.51	.051	1.30	.250	6.35	.885	22.48
				1 in a bag 50 in a box					**Product Description:** 5 strands tinned copper-covered steel, 16 strands tinned copper, rubber insulated, paper tape, black neoprene jacket. 6″ straight portion at each end cut blunt. Color code: White, Black, Red, Green.							
	9415 90C 90V	4 unshielded	30.0	76.2	15.0	4.6	.70 10.5	23 (21x36)	.020	.51	.051	1.30	.250	6.35	.885	22.48
				1 in a bag 15 in a box					**Product Description:** 5 strands tinned copper-covered steel, 16 strands tinned copper, rubber insulated, paper tape, black neoprene jacket. 6″ straight portion at each end cut blunt. Color code: White, Black, Red, Green.							
	8491 90C 90V	4 2 individually shielded 2 unshielded	12.0	30.5	6.0	1.8	.4	23 (21x36)	.020	.51	.047	1.19	.275	6.99	1.01	25.7
				1 in a bag					**Product Description:** 5 strands tinned copper-covered steel, 16 strands tinned copper, rubber insulated, conductive textile wrap shield plus Beldfoil aluminum-polyester shield with drain wire same as conductors, paper tape, black neoprene jacket. 6″ straight portion at each end cut blunt. 100% shield coverage. Nominal capacitance of shielded conductor (pF/cord): 575. Color code: White, Black, Red, Green.							
	9416 90C 90V	4 2 individually shielded 2 unshielded	30.0	76.2	15.0	4.6	.89 13.0	(21x36)	.020	.51	.047	1.19	.275	6.99	1.01	25.7
				1 in a bag 15 in a box					**Product Description:** 5 strands tinned copper-covered steel, 16 strands tinned copper, rubber insulated, conductive textile wrap shield plus Beldfoil aluminum-polyester shield with drain wire same as conductors, paper tape, black neoprene jacket. 6″ straight portion at each end cut blunt. 100% shield coverage. Nominal capacitance of shielded conductor (pF/cord): 1250. Color code: White, Black, Red, Green.							
	8490 90C 90V	5 unshielded	11.5	29.2	6.0	1.8	.32	(21x36)	.020	.51	.045	1.14	.265	6.73	.915	22.23
				1 in a bag					**Product Description:** 5 strands tinned copper-covered steel, 16 strands tinned copper, rubber insulated, paper tape, black neoprene jacket. 6″ straight portion at each end cut blunt. Color code: White, Black, Red, Green, Blue.							

Retractile Cables SVO and SJO

18 Gage
Stranded Conductors (41x34)

Product Description
Bare copper, rubber insulated, cabled with fillers, paper tape wrap, black neoprene jacket. 12″ straight portion each end (except 6″ straight portion on 8601, 8602 and 8603). Jacket removed 1½″ each end. Color code: (1) White, (2) Black, (3) Green, (4) Red. Voltage Rating: 300 Volts. U.L. 62 Flex Cord and Fixture Wire. Underwriters Laboratories Inc. Listed. Certified to C.S.A. Standards.

Description	Trade & U.L. Style Number	No. of Cond.	Retracted Length		Practical Extended Length		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Coil O.D.	
			Inch	cm	ft	m			Inch	mm	Inch	mm	Inch	mm	Inch	mm
LISTED SVO 60C	**8601**	2	12	30.5	6	1.8	.4	(41x34)	.016	.41	.045	1.14	.270	6.86	.938	23.81
				1 in a bag												
	9476	2	24	61.0	12	3.7	.6	(41x34)	.016	.41	.045	1.14	.270	6.86	.938	23.81
				1 in a bag 15 in a box			9.7									
	9477	2	48	121.9	25	7.6	1.2	(41x34)	.016	.41	.045	1.14	.270	6.86	.938	23.81
				1 in a bag 15 in a box			22.7									
	9478	3	24	61.0	12	3.7	.8	(41x34)	.016	.41	.045	1.14	.275	6.99	.938	23.81
				1 in a bag 15 in a box			12.2									
	9479	3	48	121.9	25	7.6	1.6	(41x34)	.016	.41	.045	1.14	.275	6.99	.938	23.81
				1 in a bag 15 in a box			21.3									
LISTED SJ0 60C	**9482**	4	24	60.9	12	3.7	1.6	(41x34)	.031	.79	.045	1.14	.385	9.78	1.44	36.51
				1 in a bag												
	9483	4	48	121.9	25	7.6	2.7	(41x34)	.031	.79	.045	1.14	.385	9.78	1.44	36.51
				1 in a bag												

16 Gage
Stranded Conductors (65x34)

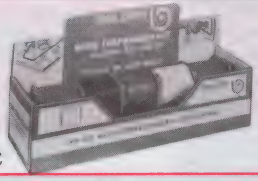
Product Description
Bare copper, rubber insulated, cabled with fillers, paper tape wrap, black neoprene jacket. 12″ straight portion each end (except 6″ straight portion on 8603). Jacket removed 1½″ each end. Color code: (1) White, (2) Black, (3) Green.

Description	Trade & U.L. Style Number	No. of Cond.	Retracted Length		Practical Extended Length		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Nominal Coil O.D.	
			Inch	cm	ft	m			Inch	mm	Inch	mm	Inch	mm	Inch	mm
LISTED SJO 60C	**8603**	3	12	30.5	6	1.8	.7	(65x34)	.031	.79	.045	1.14	.370	9.40	1.44	36.51
				1 in a bag												
	9484	3	24	60.9	12	3.7	1.4	(65x34)	.031	.79	.045	1.14	.370	9.40	1.44	36.51
				1 in a bag												
	9485	3	48	121.9	25	7.6	2.5	(65x34)	.031	.79	.045	1.14	.370	9.40	1.44	36.51
				1 in a bag												

General Line and Convenience Packaged Products

Kits
Hook-Up Wire on Racks

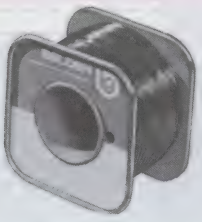
R and D Labs… Engineers… Servicemen… Hobbyists Specify Trade Number **8800** for Rack only
Stock Colors 1. Brown 2. Red 3. Orange 4. Yellow 5. Green 6. Light Blue 7. Violet (Purple)
8. Gray 9. White 10. Black

Description	No. of Spools	Trade Number	Spool Lengths		Std. Unit Lbs. ea.	Type of Wire	Colors In Kit
			ft.	m			
 60C	8	**8816†**	25	7.6	2.5	18 (16x30) Tinned PVC (8522-25)	1, 2, 3, 4, 5, 6, 9, 10
	8	**8824†**	25	7.6	1.8	20 (10x30) Tinned PVC (8523-25)	1, 2, 3, 4, 5, 6, 9, 10
	5	**8825†**	100	30.5	3.0	20 (7x28) Tinned PVC (8502-100)	2, 4, 5, 9, 10
	5	**9531†**	100	30.5	2.8	22 (7x30) Tinned PVC (8524-100)	2, 5, 6, 9, 10

Magnet Wire

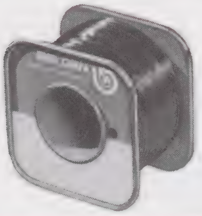
Belden Heavy Armored Poly-Thermaleze□

Belden High Temperature Heavy Armored Poly-Thermaleze is a dual coated magnet wire. The base coat is a cross-linked, modified polyester; the top coat is an amide-imide polymer; rated for 180C usage and has exceptional ability to resist solvents and abuse in difficult windings. Complies with J-W-1177A specifications.

Description	AWG	Trade Number	Approximate Length		Std. Unit Lbs. ea.	Turns per Linear Inch	Turns per Square Inch
			ft.	m			
1 Pound Spool 	14	**8073**	80	24.4	1.06	14.9	222
	16	**8074**	126	38.4	1.06	18.6	346
	18	**8075**	199	60.7	1.06	23.2	538
	20	**8076**	315	96.0	1.06	28.9	835
	22	**8077**	501	152.7	1.06	36.0	1296
	24	**8078**	793	241.7	1.06	44.7	1998
	26	**8079**	1260	384.1	1.06	55.7	3102
	28	**8080**	1990	606.6	1.06	69.4	4816
	30	**8081**	3140	957.1	1.06	86.2	7430
	34	**8083**	7860	2395.7	1.06	133.1	17716
	38	**8085**	19300	5882.6	1.06	206.0	42436

Single Beldsol® Solderable

Beldsol Magnet Wire is a dual film insulated Magnet Wire that combines the excellent dielectric characteristics of Polyurethane and the known toughness and solvent resistance offered by an overcoat of nylon. This wire is rated by IEEE tests for 270F usage and will solder without insulation removal at 750F. Complies with J-W-1177A specifications.

Description	AWG	Trade Number	Approximate Length		Std. Unit Lbs. ea.	Turns per Linear Inch	Turns per Square Inch
			ft.	m			
½ Pound Spool 	18	**8049**	100	30.5	.55	23.9	571
	20	**8050**	160	48.8	.55	29.9	894
	22	**8051**	254	77.4	.55	37.5	1406
	24	**8052**	404	123.1	.55	46.9	2200
	26	**8053**	645	196.6	.55	59.0	3481
	28	**8054**	1020	310.9	.55	73.8	5446
	30	**8055**	1615	492.3	.55	91.7	8409
	32	**8056**	2515	766.6	.55	114.0	12996
	34	**8057**	4060	1237.5	.55	144.0	20736
	36	**8058**	6400	1950.7	.55	180.0	32400

†Passes the VW-1 Vertical Wire Flame Test.
□Licensed under U.S. Patent 3,022,200.

Twin Lead Cables

With today's strong emphasis on quality UHF and color TV programming and equipment, the importance of the transmission line connecting the outdoor antenna and TV receiver is critical. Until recently, there's been a big quality gap—a missing link—between the best engineered color TV sets and the finest TV antennas. Belden's Lead-Ins were specially engineered to provide color and black/white, VHF and UHF TV and FM reception in congested close-in areas and uncongested fringe areas.

Shielded Metro-Color® TV Lead-In Wire

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Nominal O.D.		Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm		pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 185 ohms 80C	**9090**[P]	Carry-pak, coils (terminals attached to one end)			26 (7x34)	.215 x .345	5.46 x 8.76	70%	5.4	17.7	100 200 300 500 900	3.6 5.2 6.4 8.4 11.5	11.8 17.1 21.0 27.6 37.7
		25	7.6	.9									
		50	15.2	1.5									
		75	22.9	2.2									
		100	30.5	2.7									
		Convert-A-Pak™											
		T-500	T-152.4	15.8									

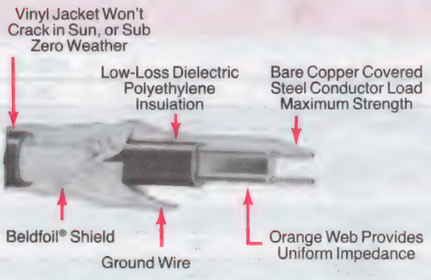
Product Description: Bare copper-covered steel, 2 conductors, orange polyethylene insulation and web between conductors, cellular polyethylene oval insulation, Beldfoil® shield, 26 AWG stranded tinned copper-covered steel drain wire, brown PVC jacket.
Designed to provide superior VHF, UHF, Color and B/W TV and FM reception in metropolitan areas where interference problems are greatest. Beldfoil shielding assures a clean signal by eliminating transmission line pick-up of ghost signals and electrical noise (including automotive ignition noise). Belden 9090 is small, and flexible for easy installation. The small size also makes it useful for portable TV sets. Because 9090 is shielded, it can be installed in the most direct route between antenna and receiver and standoffs are not necessary. 9090 can be taped to the mast.

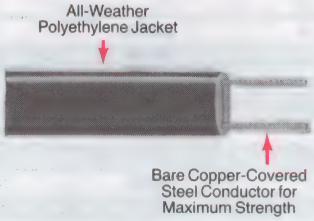
Maxi-Color® TV Lead-In Wire

Description	Trade & U.L. Style Number	ft.	m	Std. Unit Lbs. ea.	AWG (Stranding)	Inch	mm	Nom. Vel. of Prop.	pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 300 ohms 80C	**9085**	Carry-pak, coils (terminals attached to one end)			22 (7x30)	.165 x .400	4.19 x 10.16	80%	4.5	14.8	100 200 300 500 900	1.4 2.2 2.8 3.8 5.6	4.6 7.2 9.2 12.5 18.4
		25	7.6	.6									
		50	15.2	1.1									
		75	22.9	1.0									
		100	30.5	1.9									
		Convert-A-Pak™											
		T-500	T-152.4	10.3									
		Spools											
		1000	304.8	22.0									

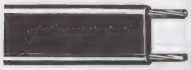
Product Description: Bare copper-covered steel, 2 conductors parallel, cellular brown polyethylene oval jacket.
Recommended for use in VHF, UHF, Color and B/W TV and FM installations in uncongested or fringe areas where interference is not a problem. Designed to deliver more signal to the receiver under adverse environmental conditions. The brown cellular polyethylene insulation protects the major portion of the signal energy fields around the conductors and resists ultraviolet degradation.

[P] Belden U.S. Patent No. 3,439,111 and Canadian Patent 823,270.


Vinyl Jacket Won't Crack in Sun, or Sub Zero Weather
Low-Loss Dielectric Polyethylene Insulation
Bare Copper Covered Steel Conductor Load Maximum Strength
Beldfoil® Shield
Ground Wire
Orange Web Provides Uniform Impedance


All-Weather Polyethylene Jacket
Bare Copper-Covered Steel Conductor for Maximum Strength

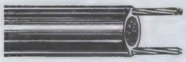
Twin Lead Cables

Description	Trade & U.L. Style Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	AWG (Stranding)	Nominal O.D. inch	Nominal O.D. mm	Nom. Vel. of Prop.	Nominal Capacitance pF/ft.	Nominal Capacitance pF/m	Nominal Attenuation MHz	Nominal Attenuation db/100 ft.	Nominal Attenuation db/100 m
Permohm® 300 ohms 80C	**8285**	Coils in a counter dispenser (terminals attached to one end)			22 (7x30)	.255 x .468	6.48 x 11.89	73.3%	4.6	15.1	100 300 500 700 900	1.4 2.8 3.8 4.8 5.6	4.6 9.2 12.5 15.7 18.4
		50 75 100	15.2 22.9 30.5	1.65 2.37 3.09	**Product Description:** Bare copper-covered steel, 2 conductors parallel, orange polyethylene insulation and web between conductors, cellular polyethylene oval brown jacket. Provides superior VHF, UHF, Color and B/W TV and FM reception in uncongested or fringe areas. The special polyethylene jacket protects the major portion of the energy field. Provides highest efficiency of any available unshielded transmission line, even when exposed to smog, moisture, weathering and industrial atmospheres.								
		Spools											
		250 500 1000	76.2 152.4 304.8	11.3 18.5 36.4									
Weldohm® 300 ohms 80C	**8230**	Pancake coils in a sleeve (terminals attached to one end)			20 (7x28)	.072 x .400	1.83 x 10.16	80.0%	3.6	11.8	100 200 300 500 900	1.1 1.7 2.2 3.1 4.5	3.6 5.6 7.2 10.2 14.8
		25 50 75 100	7.6 15.2 22.9 30.5	.47 .84 1.20 1.60	**Product Description:** Bare copper-covered steel, 2 conductors parallel, brown polyethylene insulated. Weldohm is 1½ times *stronger* and has 2½ times more Flex-Life than equivalent twin lead with all copper conductors, without changing the RF electrical characteristics. Tests prove its superior resistance to the pulling, whipping and twisting that is so important to a long-lasting installation.								
		Spools											
		500 T-1000	152.4 T-304.8	9.5 17.5									
 300 ohms 80C	**8225**	Pancake coils in a sleeve (terminals attached to one end)			20 (7x28)	.072 x .400	1.82 x 10.16	80.0%	3.6	11.8	100 200 300 500 900	1.1 1.7 2.2 3.1 4.5	3.6 5.6 7.2 10.2 14.8
		25 50 75 100	7.6 15.2 30.5 30.5	.37 .74 1.10 1.50	**Product Description:** Bare copper, 2 conductors parallel, brown polyethylene insulated.								
		Spools											
		500 T-1000	152.4 T-304.8	9.0 16.5									

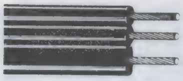
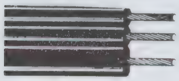
General Line and Convenience Packaged Products

BELDEN
COOPER INDUSTRIES

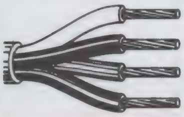
Twin Lead Cables

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Nominal O.D.		Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
		ft.	m			Inch	mm		pF/ft.	pF/m	MHz	db/100 ft.	db/100 m
 Celluline® 300 ohms	**8275** 80C	Coils in counter dispenser (terminals attached to one end)			20 (7x28)	.300 x .400	7.62 x 10.16	80%	4.6	15.1	100 200 300 500 900	1.0 1.6 2.1 3.0 4.3	3.3 5.3 6.9 9.8 14.1
		50 75 100	15.2 22.9 30.5	1.53 2.16 2.85	**Product Description:** Bare copper-covered steel, 2 conductors parallel, brown polyethylene jacket with inert gas filled unicellular polyethylene core. Celluline maintains uniform electrical characteristics by eliminating all possible moisture between conductors. Installation is easier because no end-sealing is necessary. The thick outer wall of brown polyethylene protects the cable from abrasion and sun damage; the round shape offers less wind resistance. The result is a longer lasting, more efficient line. Recommended for Black and White VHF and local UHF reception.								
		Spools											
		500 1000	152.4 304.8	15.3 34.0									

Antenna Rotor Cables

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m			Inch	mm	Inch	mm	Inch	mm
	**9403** 80C	3	Pancake coils			20 (7x28.5)	—	—	—	—	.075 x .360	1.91 x 9.14
			50 75 100	15.2 22.9 30.5	.9 1.3 1.8	**Product Description:** Bare copper, parallel, black polyethylene insulated. One conductor oblong insulation. Fits Channel Master Rotors. Suggested working voltage: 200.						
			Convert-A-Pak™									
			T-500	T-152.4	9.0							
	**9404** 80C	3	Pancake coils			20 (7x28.5)	—	—	—	—	.075 x .350	1.91 x 8.89
			50 75 100	15.2 22.9 30.5	.9 1.3 1.8	**Product Description:** Bare copper, parallel, gold PVC insulated. One conductor oblong insulation. Fits Channel Master Rotors. Suggested working voltage: 200.						
			Convert-A-Pak™									
			T-500	T-152.4	10.5							

Antenna Rotor Cables

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft	m			Inch	mm	Inch	mm	Inch	mm
	8464† 75C	4	Pancake coils			20 (7x28)	.015	.38	—	—	.070 x .390	1.78 x 9.91
			50 75 100	15.2 22.9 30.5	1.4 1.8 2.5	**Product Description:** Bare copper, parallel chrome PVC insulation. One conductor tinned. Suggested working voltage: 200.						
			Convert-A-Pak™									
			T-500	T-152.4	14.0							
			Spools									
			1000	304.8	26.5							
	8463† 80C	5	Pancake coils			20 (7x28)	.015	.38	—	—	.070 x .375	1.78 x 9.53
			50 100	15.2 30.5	1.1 2.2	**Product Description:** Bare copper parallel, brown polyethylene insulated. One conductor tinned. Suggested working voltage: 200.						
			Convert-A-Pak™									
			T-500	T-152.4	12.5							
	**8443†** ЯU 2576 150V 80C	3	100 500 1000 U-500 U-1000	30.5 152.4 304.8 U-152.4 U-304.8	2.1 9.0 18.1 9.0 17.5	22 (7x30) tinned copper	.010	.25	.032	.81	.164	4.17
						Chrome PVC insulation. Color code: Black, Red, Green.						
	8444† ЯU 2576 150V 80C	4	100 250 U-500 500 U-1000 1000	30.5 76.2 U-152.4 152.4 U-304.8 304.8	2.4 5.8 11.2 10.9 21.5 22.2	22 (7x30) tinned copper	.010	.25	.032	.81	.182	4.62
						Chrome PVC jacket. Color code chart No. 1, Technical Information Section. **For Plenum version, see 88444 on page 122.**						
	8445† ЯU 2576 150V 80C	5	100 250 U-500 500 U-1000 1000	30.5 76.2 U-152.4 152.4 U-304.8 304.8	2.8 6.7 12.6 13.7 25.1 25.9	22 (7x30) tinned copper	.010	.25	.032	.81	.194	4.93
						Chrome PVC jacket. Color code chart No. 1, Technical Information Section.						
	8484† 75C	4	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	2.8 12.6 12.3 24.2 25.0	20 (7x28) bare copper	.010	.25	.020	.51	.180	4.57
						Chrome PVC jacket. Suggested working voltage: 200. Color code: Black, Green, Red, White.						
	8489† ЯU 2598 300V 60C	4	100 250 U-500 500 U-1000 1000	30.5 76.2 U-152.4 152.4 U-304.8 304.8	5.1 11.8 23.1 23.9 45.2 48.3	18 (16x30) tinned copper	.018	.46	.032	.81	.264	6.71
						Chrome PVC jacket. Color code Black, White, Red, Green. **For Plenum version, see 88489 on page 122.**						
	8485† 75C	5	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	3.1 15.0 15.5 29.0 29.8	20 (7x28) bare copper	.010	.25	.020	.51	.197	5.00
						Chrome PVC jacket. Suggested working voltage: 200. Color code: Black, Green, Red, White, Yellow.						

†Passes the VW-1 Vertical Wire Flame Test.

Antenna Rotor Cables

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
			ft.	m			Inch	mm	Inch	mm	Inch	mm
	8488† 75C	8	Spools			22 (7x30) bare copper	.010	.25	.020	.51	.205	5.21
			100 500 1000	30.5 152.4 304.8	3.5 17.2 32.8	**Product Description:** Bare copper, PVC insulation, chrome PVC jacket. Suggested working voltage: 200. Color code: Black, Blue, Brown, Green, Orange, Red, White, Yellow.						
			Unreel									
			U-500 U-1000	U-152.4 U-304.8	16.5 32.0							
	9405† ЯU 2464 300V 80C	8	250 500 1000	76.2 152.4 304.8	23.1 44.6 92.8	2-16 (26x30)	.018	.46	.032	.81	.345	8.76
						Color code: Black, White.						
						6-18 (16x30)						
						Color code: Brown, Red, Yellow, Blue, Orange, Green.						
						Product Description: Tinned-copper conductor, PVC insulation, chrome PVC jacket.						
	8448 ЯU 2576 150V 80C	8	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	5.2 24.2 25.0 47.5 48.4	6-22 (7x30)	.010	.25	.032	.81	.258	6.55
						Color code: Red, Green, Brown, Blue, Yellow, Orange.						
						2-18 (16x30)	.018	.46				
						Color code: Black, White.						
						Product Description: Tinned-copper conductor, PVC insulation, conductors cabled, chrome PVC jacket.						

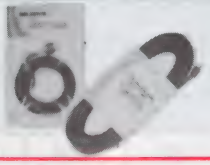
Coaxial TV Cable—Low-Loss Foam 59/U Type, 75 ohm

Selected TV and CB radio coaxial cables are available in individual packages and in assorted lengths varying from 3 ft. to 100 ft. All are fitted with connectors to speed installations.

Product Description

These versatile, 100% shielded cables are ideal for Color and for Black and White TV installations, as well as for FM Stereo systems (including most 75 ohm pre-amplifiers, booster couplers and distribution amplifiers). All cables are individually packaged and fitted with F connectors at each end for easy installation. 3-ft., 6-ft. and 12-ft. lengths for interior use are available in a choice of colors.

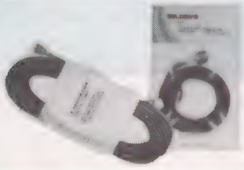
*50-ft., 75-ft. and 100-ft. (15.2m, 22.9m, 30.5m) lengths feature weatherproof boot for outdoor applications. PVC jacket.

Description	Trade & U.L. Style Number	Length		Standard Unit Lbs. ea.	Color	Cable Type
		ft.	m			
 80C	**9357**	3	0.9	.2	White, Beige	59/U Foam
	9359	12	3.7	.4	White, Beige	59/U Foam
	9345	25	7.6	.7	White, Beige	59/U Foam
	9360	50*	15.2*	1.2	Black	59/U Foam
	9361	75*	22.9*	1.8	Black	59/U Foam
	9362	100*	30.5*	2.4	Black	59/U Foam

CB-Amateur Radio Coaxial Cable—Low-Loss Foam RG 58A/U and 8/U Types—Both 50 ohm Military-Type Braid Coverage

Product Description

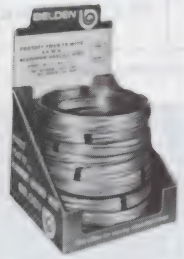
Individually packaged and fitted with PL-259 connectors on both ends except for 9347 which has connector on one end only. These cables are designed to be used with Two-way Systems, such as Citizens Band (CB), Commercial, Amateur and Marine equipment applications. They provide a positive link between the transmitter and antenna or between the receiver and antenna. The foam RG 58A/U type is smaller in size (.195 O.D.) and well suited to mobile unit applications where greater flexibility is called for. The foam RG 8/U type is larger (.405 O.D.) and capable of handling higher power requirements with lower signal losses. PVC jacket.

 60C	**9349**	3	0.9	.1	Black	58A/U Foam
	9350	15	4.6	.6	Black	58A/U Foam
	9347	20	6.1	.8	Black	58A/U Foam
	9352	50	15.2	1.5	Black	58A/U Foam
	9354	50	15.2	5.5	Black	8/U Foam
	9355	75	22.9	8.3	Black	8/U Foam
	9356	100	30.5	10.9	Black	8/U Foam

†Passes the VW-1 Vertical Wire Flame Test.

Aluminum Ground Wire

Product Description
8 AWG solid, soft annealed aluminum. Packaged in counter dispensers of 10-50′ connected coils, or spools of 500 ft. Wire on 500 ft. spools is marked every 100′ for easy measuring.

Description	Trade & U.L. Style Number	Standard Package Lengths		Std. Unit Lbs. ea.	Nominal O.D.	
		ft.	m		inch	mm
	**8018**	50 500	15.2 152.4	.8 8.2	.128	3.25

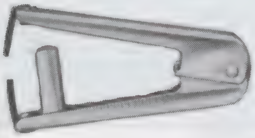
Antenna Wire

Product Description
Stranded bare copper-covered steel.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Nominal O.D.	
		ft.	m			inch	mm
	8002	100	30.5	.8	16 (7x24)	.060	1.52
	8000	100 1000	30.5 304.8	1.27 13.30	14 (7x22)	.076	1.93

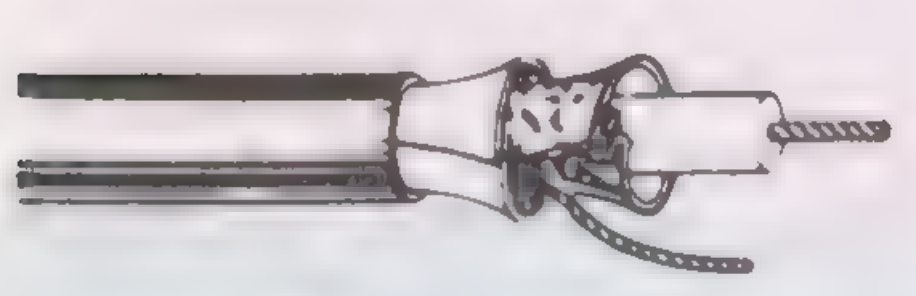
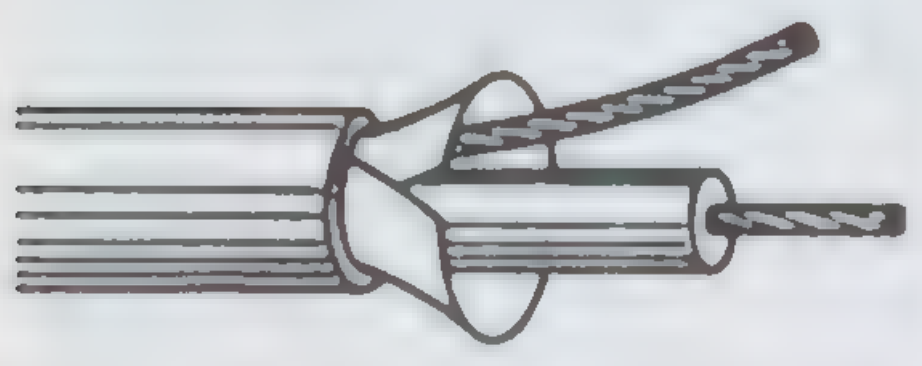
8196 Strip-It Tool

Fast, efficient way to strip wire and cable. Easy to use in tight spots. Rugged tool steel blades cut as well as strip. Adjusts for all wire sizes. Packaged for easy display and quick sales.



General Line and Convenience Packaged Products

Audio Connecting Cables

Description	Trade & U.L. Style Number	No. of Cond.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Color Coding	Nominal Capacitance			
			ft.	m			Inch	mm	Inch	mm	Inch	mm		* pF/ft.	* pF/m	** pF/ft.	** pF/m
Phono Pick-Up Arm Cables	**8430**† 80C	2	250	76.2	.4	32 (7x40)	.009	.23	—	—	.054	1.37	Black Red	29	95.1	—	—
						Product Description: Tinned copper, PVC insulated, cabled.											
	8429† 80C	2	250	76.2	.6	32 (7x40)	.009	.23	—	—	.066	1.68	Black Red	30	98.4	50	164.0
						Product Description: Tinned copper, PVC insulated, cabled, tinned copper braid shield. 54% coverage.											
Low Capacitance Cables Connecting Cables	**9456** 70C	1	100	30.5	1.7	30 (7x38)	.049	1.24	.020	.51	.160	4.06	—	12	39.4	—	—
						Product Description: Tinned copper-covered steel, foam polyethylene insulated, tinned copper spiral-wrapped shield, 91% coverage, gray PVC jacket.											
Low Capacitance Stereo Connecting Cables	**9454** 70C	2	100	30.5	3.2	30 (7x38)	.049	1.24	.020	.51	.160 x .322	4.06 x 8.18	White Red	12	39.4	—	—
						Product Description: Tinned copper-covered steel, cellular polyethylene insulated, individual tinned copper spiral wrapped shield, 91% coverage, black PVC jacket, polarity ribbed.											
Stereo Connecting Cables	**8421** 80C	1	100 250	30.5 76.2	2.2 5.0	25 (7x33)	.050	1.27	.025	.64	.180	4.57	—	16	52.5	—	—
						Product Description: 3 strands tinned copper and 4 tinned copper-covered steel, cellular polyethylene insulated, tinned copper spiral wrapped shield. 87% coverage, chrome PVC jacket.											
 Beldfoil® Miniature Audio Connecting Cables totally shielded	**8417**† 80C	1	100 250	30.5 76.2	1.3 2.8	25 (7x33)	.020	.51	.026	.66	.140	3.56	—	29	95.1	—	—
						Product Description: 3 strands tinned copper and 4 tinned copper covered steel, cellular polyethylene insulated, double Beldfoil aluminum-polyester shield, inner shield folded. 25 AWG stranded tinned copper drain wire, chrome PVC jacket.											
	**9264**† 1107 60C 300V	1	100 250 500 1000	30.5 76.2 152.4 304.8	1.4 2.9 5.8 11.9	24 (7x32) Uni-strand®	.027	.69	.020	.51	.122 x .146	3.10 x 3.71	—	34	111.5	—	—
						Product Description: Uni-strand, flame retardant polyethylene insulated. Beldfoil aluminum-polyester shield, black PVC jacket. Nominal impedance—50 ohms. This is a tear-drop, machine strippable coax cable.											

Dual Channel Audio

Dual Channel Audio Cable for head set, stereo and language labs	**8416** 70C	2	50 100 250	15.2 30.5 76.2	1.1 2.0 4.6	25 (7x33)	.018	.46	.018	.46	.106 x .213	2.69 x 5.41	1 Clear 1 Red	36 each channel	118.1	—	—
						Product Description: 3 strands tinned copper and 4 tinned copper-covered steel, polyethylene insulated individual tinned copper spiral wrapped shield, 90% coverage, gray PVC jacket, polarity rib on red conductor.											

*Capacitance between conductors.
**Capacitance between 1 conductor and remaining conductors (if any) connected to shield.
†Passes the VW-1 Vertical Wire Flame Test.

General Line and Convenience Packaged Products

Portable Cordage

LISTED

SPT-1 2 Conductor PVC Parallel Lamp Cord 300V-60C

(One conductor polarity ribbed)

Description	Trade Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft.	m			Inch	mm	Inch	mm	Inch	mm
	19122	250 Brown, White, Black, Silver-Gray	76.2	5.4	18 (41x34) bare	.030	.76	—	—	.110 x .207	2.79 x 5.26
		500 Brown, White, Black, Silver-Gray	152.4	10.2							
		1000 Brown, White, Black, Silver-Gray	304.8	20.6							
	8888*	25 Brown, Gray, Ivory	7.6	.6	18 (41x34) bare	.030	.76	—	—	.110 x .207	2.79 x 5.26
		100 Brown, Gray, Ivory	30.5	2.3							
		250 Brown, Gray, Ivory	76.2	5.4							
		U-500 Brown, Gray, Ivory	U-152.4	10.6							
		U-1000 Brown, Gray, Ivory	U-304.8	20.1							

SPT-2 2 Conductor PVC Parallel Lamp Cord 300V-60C

(One conductor polarity ribbed)

Description	Trade Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft.	m			Inch	mm	Inch	mm	Inch	mm
	19123	250 Brown, Black, Silver-Gray	76.2	7.5	18 (41x34) bare	.045	1.14	—	—	.144 x .277	3.66 x 7.04
	19126	250 Brown, Black, Silver-Gray	76.2	9.7	16 (65x34) bare	.045	1.14	—	—	.155 x .299	3.94 x 7.59

SP-1 Rubber Parallel Lamp Cord 300V-60C

(One conductor polarity ribbed)

Description	Trade Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft.	m			Inch	mm	Inch	mm	Inch	mm
	8462*	100 Brown, Ivory	30.5	2.3	18 (41x34) bare	.030	.76	—	—	.123 x .227	3.12 x 5.77
		250 Brown, Ivory	76.2	5.5							
	19115*	250 Brown, Black	76.2	5.6	18 (41x34) bare	.030	.76	—	—	.123 x .227	3.12 x 5.77

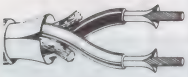
HPN-2 Conductor Hypalon® Heater Cord 300V-90C

Description	Trade Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft.	m			Inch	mm	Inch	mm	Inch	mm
	19328	250 Black	76.2	8.4	18 (41x34) bare	.045	1.14	—	—	.154 x .286	3.91 x 7.26
	19326	250 Black	76.2	10.1	16 (65x34) bare	.045	1.14	—	—	.164 x .312	4.17 x 7.92

*Are not CSA recognized.
®DuPont trademark

Portable Cordage

UL LISTED

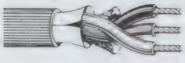
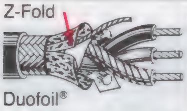
Description	Trade Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft.	m			inch	mm	inch	mm	inch	mm
SVT-2 Conductor—PVC Jacket 300V-60C Color code: Black, White.											
Paper Tape Separator	**19140**	250 Gray, Black	76.2	8.7	18 (41x34) bare	.015	.38	.030	.76	.243	6.17
		1000 Black	304.8	35.7							
SV-2 Conductor—Rubber Jacket 300V-60C Color code: Black, White.											
Cotton Serve Separator	**8452**	100 Black	30.5	3.8	18 (41x34) bare	.015	.38	.030	.76	.245	6.22
		250 Black	76.2	8.6							
		U-500 Black	U-152.4	16.7							
		500 Black	152.4	17.4							
		U-1000 Black	U-304.8	32.3							
		1000 Black	304.8	33.2							
	19120	250 Gray, Black	76.2	9.0	18 (41x34) bare	.015	.38	.030	.76	.245	6.22
SJ-2 Conductor—Rubber Jacket 300V-60C Color code: Black, White.											
	8478	250 Black	76.2	11.4	18 (41x34) bare	.030	.76	.030	.76	.298	7.57
		1000 Black	304.8	44.1							
Paper Tape Separator	**8472**	250 Black	76.2	15.5	16 (65x34) bare	.030	.76	.030	.76	.325	8.26
SJO-2 Conductor—Neoprene Jacket 300V-60C Color code: Black, White.											
	**19227**	250 Black	76.2	12.8	18 (16x30) bare	.030	.76	.030	.76	.298	7.57
Paper Tape Separator	**19228**	250 Black	76.2	16.5	16 (26x30) bare	.030	.76	.030	.76	.323	8.20
SO-2 Conductor—Neoprene Jacket 600V-60C Color code: Black, White.											
	19204	250 Black	76.2	19.5	18 (41x34) bare	.030	.76	.060	1.52	.375	9.53
	19203	250 Black	76.2	24.0	16 (65x34) bare	.030	.76	.060	1.52	.401	10.19
	19202	250	76.2	35.4	14 (41x30) bare	.045	1.14	.080	2.03	.528	13.41
Paper Tape Separator	**19201**	250	76.2	47.3	12 (65x30) bare	.045	1.14	.095	2.41	.599	15.21

General Line and Convenience Packaged Products

BELDEN
COOPER INDUSTRIES

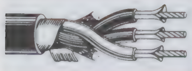
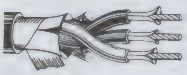
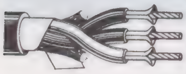
Portable Cordage

UL LISTED

Description	Trade Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft.	m			Inch	mm	Inch	mm	Inch	mm
SJT-3 Conductor—PVC Jacket 300V-60C Color code: Black, White, Green.											
Paper Tape Separator	**19348**	250 Gray, Black	76.2	15.5	18 (41x34) bare	.030	.76	.030	.76	.328	8.33
	19349	250 Gray, Black	76.2	18.9	16 (65x34) bare	.030	.76	.030	.76	.353	8.97
SJT-3 Conductor—PVC Jacket 300V-60C IEC Color code: Light Blue, Brown, Green/Yellow.											
Paper Tape Separator	**19352**	250 Black	76.2	16.0	18 (41x34) bare	.030	.76	.030	.76	.328	8.33
	19353	250 Black	76.2	19.3	16 (65x34) bare	.030	.76	.030	.76	.353	8.97
	19354	250 Black	76.2	24.9	14 (41x30) bare	.030	.76	.030	.76	.380	9.65
SJT-3 Conductor—PVC Jacket 300V-60C Shielded IEC Color code: Light Blue, Brown, Green/Yellow.											
Beldfoil® 100% Shield Coverage	**19362**	250 Black 500 Black	76.2 152.4	18.1 34.7	18 (41x34) bare	.030	.76	.030	.76	.340	8.64
	19363	250 Black	76.2	21.7	16 (65x34) bare	.030	.76	.030	.76	.365	9.27
	19364	250 Black	76.2	26.9	14 (41x30) bare	.030	.76	.030	.76	.402	10.21
SVT-3 Conductor—PVC Jacket 300V-60C Color code: Black, White, Green.											
 Paper Tape Separator	**19350**	250 Gray	76.2	10.5	18 (41x34) bare	.015	.38	.030	.76	.253	6.43
SVT-3 Conductor—PVC Jacket 300V-60C Shielded IEC Color code: Light Blue, Brown, Green/Yellow.											
Beldfoil 100% Shield Coverage	**19401**	250 Black	76.2	11.8	18 (41x34) bare	.015	.38	.030	.76	.270	6.86
 Duofoil® 100% Shield Coverage 86% Braid Coverage	**New 19403**	250 Black	76.2	17.1	18 (41x34) bare	.015	.38	.030	.76	.307	7.80
SVT-3 Conductor—PVC Jacket 300V-60C IEC Color code: Light Blue, Brown, Green/Yellow.											
Paper Tape Separator	**19402**	250 Black	76.2	10.5	18 (41x34) bare	.015	.38	.030	.76	.253	6.43

General Line and Convenience Packaged Products

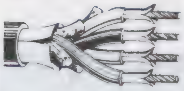
Portable Cordage UL LISTED

Description	Trade Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft.	m			Inch	mm	Inch	mm	Inch	mm
SJ-3 Conductor—Rubber Jacket 300V-60C Color code: Black, White, Green.											
Paper Tape Separator	**19129**	250 Black	76.2	15.2	18 (16x30) bare	.030	.76	.030	.76	.328	8.33
	19125	250 Black	76.2	15.2	18 (41x34) bare	.030	.76	.030	.76	.328	8.33
	19130	250 Black	76.2	19.2	16 (26x30) bare	.030	.76	.030	.76	.353	8.97
	19124	250 Black	76.2	19.3	16 (65x34) bare	.030	.76	.030	.76	.353	8.97
	8479	250 Black	76.2	24.7	14 (41x30) bare	.030	.76	.030	.76	.380	9.65
SV-3 Conductor—Rubber Jacket 300V-60C Color code: Black, White, Green.											
	**8453**	100 Black	30.5	4.6	18 (41x34) tinned	.015	.38	.030	.76	.256	6.50
		500 Black	152.4	21.0							
SJO-3 Conductor—Neoprene Jacket 300V-60C Color code: Black, White, Green.											
Paper Tape Separator	**19229**	250 Black	76.2	16.2	18 (16x30) bare	.030	.76	.030	.76	.328	8.33
	19230	250 Black	76.2	20.0	16 (26x30) bare	.030	.76	.030	.76	.353	8.97
SO-3 Conductor—Neoprene Jacket 600V-60C Color code: Black, White, Green.											
	19209	250 Black	76.2	18.3	18 (41x34) bare	.030	.76	.060	1.52	.390	9.91
	19208	250 Black	76.2	24.9	16 (65x34) bare	.030	.76	.060	1.52	.420	10.67
Paper Tape Separator	**19207**	250 Black	76.2	42.6	14 (41x30) bare	.045	1.14	.080	2.03	.558	14.17
	19206	250 Black	76.2	58.5	12 (65x30) bare	.045	1.14	.095	2.41	.634	16.10
	19205	250 Black	76.2	74.2	10 (105x30) bare	.045	1.14	.095	2.41	.705	17.90
S-3 Conductor—Rubber Jacket 600V-60C Color code: Black, White, Green.											
	**19109**	250 Black	76.2	17.7	18 (41x34) bare	.030	.76	.060	1.52	.390	9.91
	19108	250 Black	76.2	23.8	16 (65x34) bare	.030	.76	.060	1.52	.420	10.67
Paper Tape Separator	**19107**	250 Gray Black	76.2	42.6	14 (41x30) bare	.045	1.14	.080	2.03	.558	14.17
	**19106**	250 Black	76.2	54.9	12 (65x30) bare	.045	1.14	.095	2.41	.634	16.10
	19105	250 Black	76.2	72.0	10 (105x30) bare	.045	1.14	.095	2.41	.689	17.50

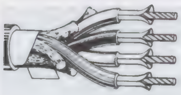
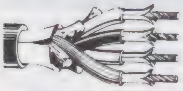
Portable Cordage

Ⓤ LISTED

4 Conductor Rubber Jacket 300V-60C Color code: Black, White, Brown, Red.

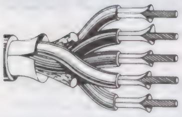
Description	Trade Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft.	m			Inch	mm	Inch	mm	Inch	mm
 Paper Tape Separator	**8454*** ЯU 4097	50 Black	15.2	2.7	18 (41x34) tinned	.015	.38	.030	.76	.272	6.91
		100 Black	30.5	5.3							
		U-500 Black	U-152.4	23.7							
		500 Black	152.4	24.5							
		U-1000 Black	U-304.8	46.5							
		1000 Black	304.8	47.5							

SO-4 Conductor—Neoprene Jacket 600V-60C Color code: Black, White, Green, Red.

Description	Trade Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft.	m			Inch	mm	Inch	mm	Inch	mm
	**19217**	50 Black	15.2	10.2	14 (41x30) bare	.045	1.14	.080	2.03	.603	15.32
		200 Black	60.9	40.8							
 Paper Tape Separator	**19216**	50 Black	15.2	14.2	12 (65x30) bare	.045	1.14	.095	2.41	.690	17.53
		200 Black	60.9	56.6							

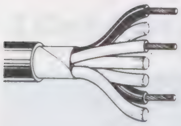
5 Conductor Portable Cordage

5 Conductor—Rubber Jacket 300V-60C Color code: Brown, Green, White, Black, Red.

Description	Trade Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft.	m			Inch	mm	Inch	mm	Inch	mm
 Paper Tape Separator	**8455*** ЯU 4256	100 Black	30.5	5.1	3-20 (26x34) tinned	.015	.38	.030	.76	.280	7.11
		250 Black	76.2	12.9	2-18 (41x34) tinned	.015	.38				
		U-500 Black	U-152.4	23.5							
		U-1000 Black	U-304.8	45.9							

SJT PVC Type Low Leakage 3 Conductor Power Cord

U.L. Listed for 75C Service Color code: Black, White, Green.

Description	Trade Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.	
		ft.	m			Inch	mm	Inch	mm	Inch	mm
 Paper Tape Separator	**9997***	100 Brown, Blue, Gray	30.5	9.1	18 (41x34) bare	.032	.81	.045	1.14	.430	10.9
		500 Brown, Blue, Gray	152.4	41.8							
		1000 Brown, Blue, Gray	304.8	85.5							
	9998*	100 Brown, Blue, Gray	30.5	11.0	16 (65x34) bare	.032	.81	.045	1.14	.475	12.1
		500 Brown, Blue, Gray	152.4	53.7							
		1000 Brown, Blue, Gray	304.8	104.5							

*Are not CSA recognized.

2 Conductor Speaker Wire and Zip Cord

24 Gage
Stranded Conductors—Parallel

Description	Trade & U.L. Style Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness Inch	Insulation Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Stock Colors
	8782 60C Clear 75C Chrome Brown White	25 50 100 U-500 500 U-1000 1000	7.6 15.2 30.5 U-152.4 152.4 U-304.8 304.8	.2 .3 .6 3.3 3.1 6.5 6.2	(7x32)	.017	.43	.058 x .115	1.47 x 2.92	Brown White Chrome Clear

Product Description: Copper, PVC insulated, *Parallel.* 1 conductor bare, 1 conductor tinned. Suggested working voltage: 300.

22 Gage
Stranded Conductors—Parallel

Description	Trade & U.L. Style Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness Inch	Insulation Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Stock Colors
	9712 60C	50 100 U-500 500 U-1000 1000	15.2 30.5 U-152.4 152.4 U-304.8 304.8	.4 .9 4.8 4.3 8.6 8.1	(7x30)	.017	.43	.065 x .130	1.65 x 3.30	Clear

Product Description: Copper PVC insulated, *Parallel.* 1 conductor bare, 1 conductor tinned. Suggested working voltage: 300.

20 Gage
Stranded Conductors—Parallel

Description	Trade & U.L. Style Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness Inch	Insulation Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Stock Colors
	8649† 60C Clear 75C Chrome	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	1.4 6.0 5.7 11.3 11.0	(7x28)	.018	.46	.073 x .146	1.85 x 3.71	Chrome Clear

Product Description: Copper, PVC insulated, *Parallel.* 1 conductor tinned, 1 conductor bare. Suggested working voltage: 300.

18 Gage
Stranded Conductors—Parallel

Description	Trade & U.L. Style Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness Inch	Insulation Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Stock Colors
	9708 60C	50 100 U-500 500 U-1000 1000	15.2 30.5 U-152.4 152.4 U-304.8 304.8	1.3 2.2 9.9 9.6 18.8 19.5	(16x30)	.030	.76	.110 x .207	2.79 x 5.26	Clear

Product Description: Copper PVC insulated, *Parallel.* 1 conductor bare, 1 conductor tinned. Suggested working voltage: 300.

16 Gage
Stranded Conductors—Parallel

Description	Trade & U.L. Style Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness Inch	Insulation Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Stock Colors
	9716 60C	50 100 U-500 500 U-1000 1000	15.2 30.5 U-152.4 152.4 U-304.8 304.8	1.6 2.8 13.3 13.0 25.6 26.3	(26x30)	.027	.69	.115 x .230	2.92 x 5.84	Clear

Product Description: Copper, PVC insulated, *Parallel.* 1 conductor tinned, 1 conductor bare. Suggested working voltage: 300.

†Passes the VW-1 Vertical Wire Flame Test.

General Line and Convenience Packaged Products

2 Conductor Speaker Wire and Zip Cord

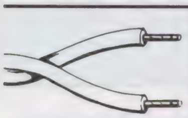
14 Gage Stranded Conductors—Parallel

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	(Stranding) and Type Designation	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	
	9717 60C	50 100 U-500 500 U-1000 1000	15.2 30.5 U-152.4 152.4 U-304.8 304.8	2.2 4.1 19.1 18.9 37.2 38.0	(19x27) 2.7Ω/M′ 8.86Ω/km	.035	.89	.141 x .282	3.58 x 7.16	Clear
					Product Description: Copper, PVC insulated, *Parallel.* 1 conductor bare, 1 conductor tinned.					

12 Gage Stranded Conductors—Parallel

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	(Stranding) and Type Designation	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	
	9718 60C	50 100 500 1000	15.2 30.5 152.4 304.8	3.5 6.8 32.4 63.2	(65x30) 1.75Ω/M′ 5.75Ω/km	.045	1.14	.185 x .370	4.70 x 9.40	Clear
					Product Description: Copper, PVC insulated, *Parallel.* 1 conductor bare, 1 conductor tinned.					

22 Gage Stranded Conductors—Cabled

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	(Stranding) and Type Designation	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	
	**9151** UL LISTED Wires Misc. 90V Max. 80C	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	4.2 3.6 7.4 7.0	(7x30)	.012	.30	.108	2.74	Brown or White
					Product Description: Copper, PVC insulated, *Cabled.* 1 conductor tinned, 1 conductor bare.					

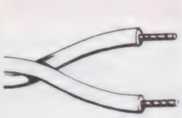
20 Gage Stranded Conductors—Cabled

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	(Stranding) and Type Designation	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	
	9152 UL LISTED Wires Misc. 90V Max. 80C	U-1000 1000	U-304.8 304.8	10.0 9.8	(10x30)	.012	.30	.125	3.18	Brown or White
					Product Description: Copper, PVC insulated, *Cabled.* 1 conductor tinned, 1 conductor bare.					

18 Gage Stranded Conductors—Cabled

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	(Stranding) and Type Designation	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	
	8460† ЯU 1007 300V 80C	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	2.1 9.5 9.2 17.9 18.7	(7x26)	.020	.51	.180	4.57	Black White
					Product Description: Tinned copper, PVC insulated, *Cabled.*					

16 Gage Stranded Conductors—Cabled

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	(Stranding) and Type Designation	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	
	**8470†** ЯU 1007 300V 80C	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	12.4 11.9 23.8 24.5	(19x29)	.023	.58	.205	5.21	Black White
					Product Description: Tinned copper, PVC insulated, *Cabled.*					
	9497† ЯU 1007 300V 80C	500 1000	152.4 304.8	13.6 25.8	(19x29)	.023	.58	.206	5.23	Orange Black
					Product Description: Tinned copper, PVC insulated, *Cabled.*					

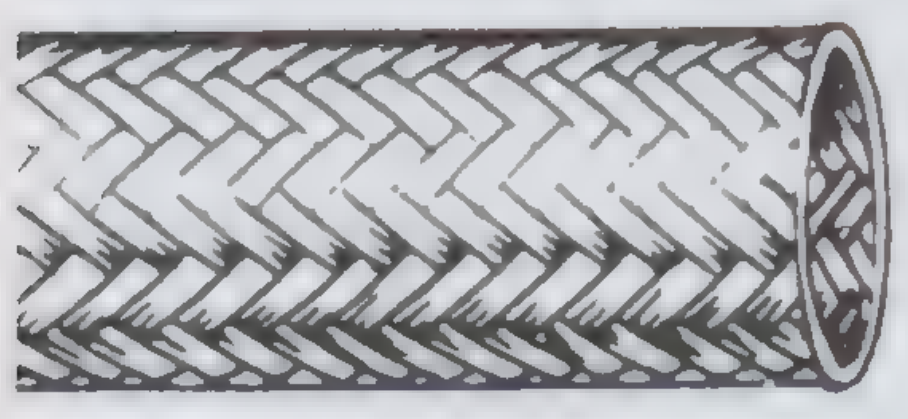
3 Conductor Cabled Speaker Wire

16 Gage Stranded Conductors—Cabled

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	(Stranding) and Type Designation	Insulation Thickness		Nominal O.D.		Stock Colors
		ft.	m			Inch	mm	Inch	mm	
	9498† ЯU 1007 300V 80C	500 1000	152.4 304.8	19.5 37.4	(19x29)	.027	.69	.220	5.59	Orange, Black and Orange with Black Stripe
					Product Description: Tinned copper, PVC insulated, *Cabled.*					

†Passes the VW-1 Vertical Wire Flame Test.

Shielding and Bonding Cables

Description	Trade & U.L. Style Number	Standard Spool Lengths		Std. Unit Lbs. ea.	(Stranding)	Circular Area Approximate		Recommended Current (Amps)	Nominal I.D. Tubular		Nominal Flat Width	
		ft.	m			CMA	mm²		Inch	mm	Inch	mm
 Braided wire conforming to QQ-B-575B can be manufactured on a special order basis, tinned or silver-coated copper.	**8660**	50 250	15.3 76.2	.7 3.5	(96x34) tinned	3800	1.92	27.0	⅛	3.18	—	—
	8668	50 250	15.3 76.2	.9 4.9	(120x34) tinned	4800	2.43	36.0	11/64	4.37	—	—
	8663	50 250	15.3 76.2	1.3 6.6	(168x34) tinned	6700	3.39	38.0	7/32	5.56	—	—
	8661	50 250 ◆	15.3 76.2	1.4 7.1	(192x34) tinned	7600	3.85	46.0	13/64	5.16	—	—
	8669	50 250 ◆	15.3 76.2	2.6 11.6	(336x34) tinned	13300	6.74	62.0	½	12.70	—	—
	8662	50 250 ◆	15.3 76.2	4.2 19.8	(576x34) tinned	22900	11.60	80.0	25/32	19.84	—	—
	8670	10 50 250 ◆	3.0 15.3 76.2	1.9 8.9 42.9	(480x30) tinned	48000	24.30	145.0	—	—	¾	19.05

Dimensions shown are approximate, due to pliable nature of braided cables. For additional sizes, see current Braided and Stranded Section of L-81 Lead Wire Catalog.

◆ Spools may contain more than one piece, minimum length of any one piece is 25 feet. When priced per M feet, length may vary ±10% from length shown; all other lengths are exact.

Bus Bar Wire

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG	Nominal O.D.		Circular Area	
		ft.	m			Inch	mm	CMA	mm^2
	8025	100 1000	30.5 304.8	.08 .34	30	.0101	.256	102.0	.0516
	8024	100 1000	30.5 304.8	.06 .54	28	.0130	.330	169.0	.0856
	8023	100 1000	30.5 304.8	.12 .86	26	.0163	.414	265.7	.1346
Made in accordance with Federal Spec. QQ-W-343-D. Solid tinned copper.	**8022**	100 1000	30.5 304.8	.16 1.28	24	.0205	.520	420.2	.2129
	8021	100 1000	30.5 304.8	.24 2.04	22	.0257	.653	660.5	.3346
	8020	100 1000	30.5 304.8	.36 3.20	20	.0325	.825	1056.2	.5352
	8019	100 1000	30.5 304.8	.54 5.30	18	.0406	1.031	1648.4	.8352
	8013	100 1000	30.5 304.8	.84 8.20	16	.0513	1.303	2631.7	1.3330
	8012	100 1000	30.5 304.8	1.30 13.30	14	.0652	1.656	4251.0	2.1540
	8011	100	30.5	2.10	12	.0818	2.077	6691.2	3.3900

High Voltage Leads

Belden high voltage cables are designed for use in testing high voltage equipment and apparatus. Through their use, potentially dangerous conditions in high voltage equipment can be detected both before installation and at intervals during service.

Belden high voltage cables are engineered to achieve the best possible performance at continual voltages. Korona-Guard design incorporates the use of conductive polyethylene applied over the center conductor and bonded to the polyethylene dielectric material. This provides uniform voltage stress distribution around the center conductor and results in reduction of degradation due to internal corona.

For special cables up to 90 KVDC ratings, please ask for individual quotations.

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	(Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Jacket Color	Breakdown Voltage	Suggested Working Voltage
		ft.	m			Inch	mm	Inch	mm	Inch	mm			

22 Gage
Stranded Conductor (7x30)

Product Description
Tinned copper, conductive polyethylene (Korona-Guard§), polyethylene insulated. PVC jacket.

	8868	25 100 U-500 500	7.6 30.5 U-152.4 152.4	.3 1.4 6.0 5.8	(7x30)	.044	1.12	.015	.38	.150	3.81	Red	48,000 DC	24,000 DC
80C	**8869**	25 100 500	7.6 30.5 152.4	.2 1.1 4.3	(7x30)	.027	.69	.015	.38	.120	3.04	Black	35,000 DC	17,000 DC

§Korona-Guard over inner conductor, combined with a copper wire braid over the dielectric, provides uniform distribution.

High Voltage Leads

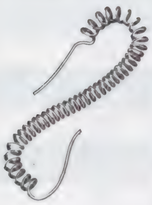
Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Jacket Thickness		Nominal O.D.		Jacket Color	Breakdown Voltage	Suggested Working Voltage
		ft.	m			Inch	mm	Inch	mm	Inch	mm			
20 Gage Stranded Conductor (7x28½)														
	9867† ЯU 3239 80C	25 100 500	7.6 30.5 152.4	.83 2.3 10.4	20 (7x28.5)	.046	1.17	.028	.71	.191	4.85	Red	60,000 DC	30,000 DC
						Product Description: Tinned copper, conductive polyethylene, (Korona-Guard§) polyethylene insulated. PVC jacket over conductor.								
18 Gage Stranded Conductor (16x30)														
	8866 80C	25 100 U-500 500	7.6 30.5 U-152.4 152.4	.85 2.42 11.0 11.6	18 (16x30)	.057	1.45	.015	.38	.208	5.28	Red	80,000 DC	40,000 DC
						Product Description: Tinned copper, conductive polyethylene, (Korona-Guard) polyethylene insulated. PVC jacket over conductor.								

Description	Trade & U.L. Style Number	Standard Lengths		Std. Unit Lbs. ea.	Standard Lengths		Std. Unit Lbs. ea.	Standard Lengths		Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness		Nominal O.D.		Breakdown Voltage
		ft.	m		ft.	m		ft.	m			Inch	mm	Inch	mm	
	8899□ 90C	10 Red/Black 14 Black/Red 25 Light Blue Gray White Black Red, Green, Yellow	3.0 4.3 (7 of each) 7.6	.2 .2 .4	100 Red Yellow Green Light Blue Gray White Black U-500 Red/Black	30.5 U-152.4	1.7 7.4	500 Red Yellow Green Light Blue Gray White Black 1000 Red/Black U-1000 Red/Black	152.4 304.8 U-304.8	7.1 14.4 13.7	18 (65x36)	.045	1.14	.144	3.66	20,000
											Product Description: Tinned copper, separator, rubber insulated. Suggested working voltage: 5000□.					
	9899 ЯU 1855 80C	100 Red/Black	30.5	1.7	500 Red/Black	152.4	7.3	1000 Red/Black	304.8	14.8	18 (65x36)	.048	1.22	.144	3.66	—
											Product Description: Tinned copper, PVC insulated. Use test probe leads for electrical and electronic measuring for test equipment. Suggested working voltage: 5000□.					
	8897□ 60C	U-500 Red/Black	U-152.4	8.2	500 Red/Black	152.4	7.9	—	—	—	18 (65x36)	.045	1.14	.144	3.66	20,000
											Product Description: Tinned copper, separator, rubber insulated. Manufactured per MIL-W-13169B. Suggested working voltage: 5000□.					
	8898□ 90C	25 Red/Black	7.6	1.0	100 Red/Black	30.5	3.3	500 Red/Black	152.4	14.8	18 (65x36)	.088	2.24	.230	5.84	29,000
											Product Description: Tinned copper, separator, rubber insulated. Suggested working voltage: 10,000□.					
	8890□ Miniature 90C	25 Red/Black	7.6	.13	100 Red/Black	30.5	.4	500 Red/Black	152.4	1.9	24 (45x40)	.019	.48	.066	1.68	10,000
											Product Description: Tinned copper, separator, rubber insulated. Suggested working voltage: 1000□.					

†Passes the VW-1 Vertical Wire Flame Test.
□For intermittent duty only.
§Korona-Guard over inner conductor, combined with a copper wire braid over the dielectric, provides uniform distribution of voltage stress.

Retractile Test Prod Wire

Product Description
Tinned copper, rubber insulated. Standard package: 1 pair, red and black. Suggested working voltage: 5000□.

Description	Trade & U.L. Style Number	Standard Lengths	Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness Inch	Insulation Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Breakdown Voltage
	**8879□** 60C	Without prods 8", .2 Meters Retracted length 60", 1.5 Meters Extended length	.3	20 (42x36)	.063	1.60	.173	4.39	20,000

All breakdown voltages and suggested working voltages are AC/RMS values.

Duplex Primary Wire

Description	Trade & U.L. Style Number	Standard Lengths ft.	Standard Lengths m	Std. Unit Lbs. ea.	AWG (Stranding)	Insulation Thickness Inch	Insulation Thickness mm	Jacket Thickness Inch	Jacket Thickness mm	Nominal O.D. Inch	Nominal O.D. mm	Color or Cond. Color Coding
	8677†	100 500	30.5 152.4	3.7 17.2	16 (19x29)	.023	.58	.022	.56	.146 x .248	3.71 x 6.30	Brown, Red
					Product Description: Bare copper, PVC insulated, conductors parallel, chrome PVC jacket.							
75C	**8675†**	100 500	30.5 152.4	4.7 22.1	14 (19x27)	.023	.58	.022	.56	.161 x .278	4.09 x 7.06	Brown, Red
					Product Description: Bare copper, PVC insulated, conductors parallel, chrome PVC jacket.							
	8673†	100 500	30.5 152.4	6.6 31.5	12 (19x25)	.026	.66	.022	.56	.186 x .328	4.72 x 8.33	Brown, Red
					Product Description: Bare copper, PVC insulated, conductors parallel, chrome PVC jacket.							
	8678†	100 500	30.5 152.4	10.1 48.7	10 (19x23)	.031	.79	.025	.64	.225 x .400	5.72 x 10.16	Brown, Red
					Product Description: Bare copper, PVC insulated, conductors parallel, chrome PVC jacket.							
	9679†	100 500	30.5 152.4	18.8 93.0	8 (19x21)	.055	1.40	.031	.79	.317 x .572	8.05 x 14.53	Brown, Red
					Product Description: Bare copper, PVC insulated, conductors parallel, chrome PVC jacket.							

†Passes the VW-1 Vertical Wire Flame Test.
□For intermittent duty only.

Technical Information

The technical information provided in this section has been expanded to include additional graphs and supplementary data as an aid in specifying the electronic cable best suited to the needs of a particular application. If you require additional technical information, contact Belden's Product Engineering Group at 317/983-5200.

Solid Bare Copper Wire American Wire Gage

Gage (AWG) or (B & S)	Nominal Diameter		Circular Mil Area	Weight Pounds per M′	Resistance at 68°F Ohms per M′
	Inches	mm			
10	.1019	2.60	10380.	31.43	.9989
11	.0907	2.30	8234.	24.92	1.260
12	.0808	2.05	6530.	19.77	1.588
13	.0720	1.83	5178.	15.68	2.003
14	.0641	1.63	4107.	12.43	2.525
15	.0571	1.45	3260.	9.858	3.184
16	.0508	1.29	2583.	7.818	4.016
17	.0453	1.15	2050.	6.200	5.064
18	.0403	1.02	1620.	4.917	6.385
19	.0359	.912	1200.	3.899	8.051
20	.0320	.813	1020.	3.092	10.15
21	.0285	.724	812.1	2.452	12.80
22	.0253	.643	640.4	1.945	16.14
23	.0226	.574	511.5	1.542	20.36
24	.0201	.511	404.0	1.223	25.67
25	.0179	.455	320.4	.9699	32.37
26	.0159	.404	253.0	.7692	40.81
27	.0142	.361	201.5	.6100	51.47
28	.0126	.320	159.8	.4837	64.90
29	.0113	.287	126.7	.3836	81.83
30	.0100	.254	100.5	.3042	103.2
31	.0089	.226	79.7	.2413	130.1
32	.0080	.203	63.21	.1913	164.1
33	.0071	.180	50.13	.1517	206.9
34	.0063	.160	39.75	.1203	260.9
35	.0056	.142	31.52	.09542	331.0
36	.0050	.127	25.00	.07568	414.8
37	.0045	.114	19.83	.0613	512.1
38	.0040	.102	15.72	.04759	648.6
39	.0035	.089	12.20	.03774	847.8
40	.0031	.079	9.61	.02993	1080.0

Information from National Bureau of Standards Copper Wire Tables—Handbook 100.

Table 2

Stranded Tinned Copper Wire American Wire Gage

AWG Size	Stranding	Nominal O.D. of Strand	Approximate O.D. Inch	Approximate O.D. mm	Circular Mil Area	Weight per 1000'	Ohms per 1000'
36	7/44	.002	.006	.153	28.00	.085	371.0
34	7/42	.0025	.0075	.191	43.75	.132	237.0
32	7/40	.0031	.008	.203	67.27	.203	164.0
32	19/44	.002	.009	.229	76.00	.230	136.4
30	7/38	.004	.012	.305	112.00	.339	103.2
30	19/42	.0025	.012	.305	118.75	.359	87.3
28	7/36	.005	.015	.381	141.75	.529	64.9
28	19/40	.0031	.016	.406	182.59	.553	56.7
27	7/35	.0056	.018	.457	219.52	.664	51.47
26	7/34	.0063	.019	.483	277.83	.841	37.3
26	10/36	.0050	.021	.533	250.00	.757	41.48
26	19/38	.0040	.020	.508	304.00	.920	34.43
24	7/32	.008	.024	.610	448.00	1.356	23.3
24	10/34	.0063	.023	.584	396.90	1.201	26.09
24	19/36	.0050	.024	.610	475.00	1.430	21.08
24	41/40	.0031	.023	.584	384.40	1.160	25.59
22	7/30	.0100	.030	.762	700.00	2.120	14.74
22	19/34	.0063	.031	.787	754.11	2.28	13.73
22	26/36	.0050	.030	.762	650.00	1.97	15.94
20	10/30	.0100	.035	.890	1,000.00	3.025	10.32
20	19/32	.0080	.037	.940	1,216.00	3.68	8.63
20	26/34	.0063	.036	.914	1,031.94	3.12	10.05
20	41/36	.0050	.036	.914	1,025.00	3.10	10.02
18	7/26	.0159	.048	1.22	1,769.60	5.36	5.86
18	16/30	.0100	.047	1.20	1,600.00	4.84	6.48
18	19/30	.0100	.049	1.24	1,900.00	5.75	5.46
18	41/34	.0063	.047	1.20	1,627.29	4.92	6.37
18	65/36	.0050	.047	1.20	1,625.00	4.91	6.39
16	7/24	.0201	.060	1.52	2,828.00	8.56	3.67
16	19/29	.0113	.058	1.47	2,426.30	7.35	4.27
16	26/30	.0100	.059	1.50	2,600.00	7.87	4.00
16	65/34	.0063	.059	1.50	2,579.85	7.81	4.02
16	105/36	.0050	.059	1.50	2,625.00	7.95	3.99
14	7/22	.0253	.073	1.85	4,480.0	13.56	2.31
14	19/27	.0142	.073	1.85	3,830.4	11.59	2.70
14	41/30	.0100	.073	1.85	4,100.0	12.40	2.53
14	105/34	.0063	.073	1.85	4,167.5	12.61	2.49
12	7/20	.0320	.096	2.44	7,168.0	21.69	1.45
12	19/25	.0179	.093	2.36	6,087.6	18.43	1.70
12	65/30	.0100	.095	2.41	6,500.0	19.66	1.75
12	165/34	.0063	.095	2.41	6,548.9	19.82	1.58
10	37/26	.0159	.115	2.92	9,353.6	28.31	1.11
10	49/27	.0142	.116	2.95	9,878.4	29.89	1.09
10	105/30	.0100	.116	2.95	10,530.0	31.76	.98

Information from National Bureau of Standards Copper Wire Tables—Handbook 100.

Table 3

Suggested Conductor Strandings for Various Degrees of Flexing Severity

Typical Application	12 AWG Stranding		14 AWG Stranding	
	AWG	mm	AWG	mm
Fixed Service (Hook-up Wire Cable in Raceway)	19x25*	19x.455*	Solid or 19x27	19x.361
Moderate Flexing (Frequently Disturbed For Maintenance)	65x30	65x.254	19x27 or 41x30	19x.361 or 41x.254
Severe Flexing (Microphones, Test Prods)	165x34	165x.160	104x34	104x.160
Most Severe Duty (Mercury Switches)	259x36 (⅞x37*** Rope Lay)	259x.127	168x36 (7x24 Rope Lay)	168x.127

Typical Application	16 AWG Stranding		18 AWG Stranding	
	AWG	mm	AWG	mm
Fixed Service (Hook-up Wire Cable in Raceway)	Solid or 19x29	19x.287	Solid or 7x26 or 16x30	7x.404 or 16x.254
Moderate Flexing (Frequently Disturbed For Maintenance)	19x29 or 26x30	19x.287 or 26x.254	16x30 or 41x34	16x.254 or 41x.160
Severe Flexing (Microphones, Test Prods)	65x34 or 104x36	65x.160 or 104x.127	41x34 or 65x36	41x.160 or 65x.127
Most Severe Duty (Mercury Switches)	105x36 (7x15 Rope Lay)	105x.127	63x36 (7x9 Rope Lay)	63x.127

Typical Application	20 AWG Stranding		22 AWG Stranding	
	AWG	mm	AWG	mm
Fixed Service (Hook-up Wire Cable in Raceway)	Solid or 7x28 or 10x30	7x.320 or 10x.254	Solid or 7x30	7x.254
Moderate Flexing (Frequently Disturbed For Maintenance)	7x28 or 10x30 or 19x32 or 26x34	7x.320 or 10x.254 or 19x.203 or 26x.160	7x30 or 19x34	7x.254 or 19x.160
Severe Flexing (Microphones, Test Prods)	26x34 or 42x36	26x.160 or 42x.127	19x34 or 26x36	19x.160 or 26x.127
Most Severe Duty (Mercury Switches)	105x40 (3x35 Rope Lay)	105x.079	(Consider braid or tinsel)	

Typical Application	24 AWG Stranding		26 AWG Stranding	
	AWG	mm	AWG	mm
Fixed Service (Hook-up Wire Cable in Raceway)	Solid or 7x32	7x.203	Solid or 7x34	7x.160
Moderate Flexing (Frequently Disturbed For Maintenance)	7x32 or 10x34	7x.203 or 10x.160	7x34	7x.160
Severe Flexing (Microphones, Test Prods)	19x36 or 45x40**	19x.127 or 45x.079**	7x34 or 10x36**	7x.160 or 10x.127**
Most Severe Duty (Mercury Switches)		(Consider braid or tinsel)		

*19 strands of 25 AWG or 19 strands of .455 mm wire.

**Composite constructions consisting of 4 strands copper-covered steel and 3 strands copper are frequently used for severe flexing in small size cables. No. 25 AWG (4x33 copper-covered steel + 3x33 copper) is popular in microphone cables.

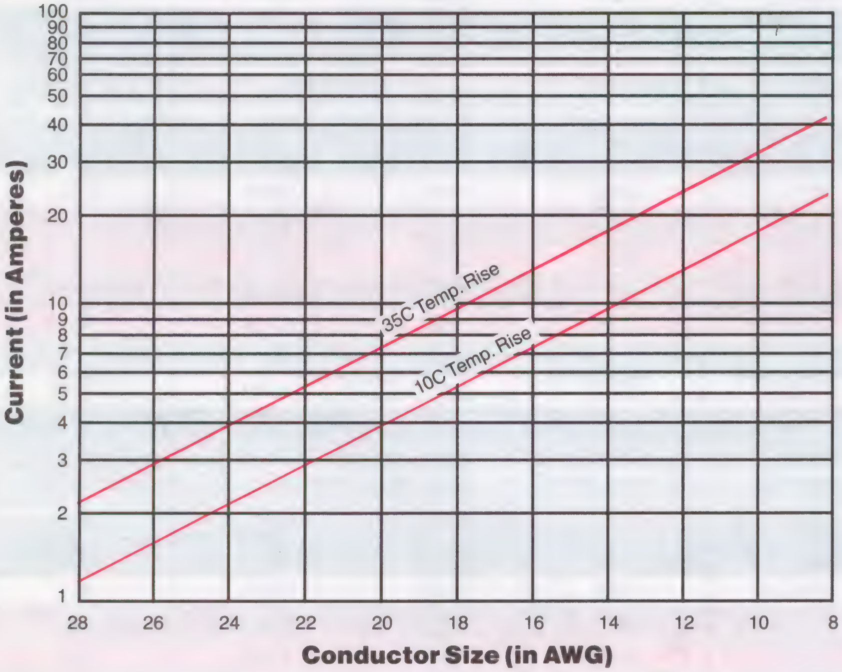
***Rope lay is several stranded groups cabled together. For example: No. 12 AWG, 259x36 is 7 cords each consisting of 37 strands of No. 36 AWG.

Current Ratings for Electronic Cables

The maximum continuous current rating for an electronic cable is limited by conductor size, number of conductors contained within the cable, maximum temperature rating of the cable, and environmental conditions such as ambient temperature and air flow. To use the current capacity chart, first determine conductor gage, temperature rating, and number of conductors from the applicable product description for the cable of interest.

Next, find the current value on the chart for the proper temperature rating and conductor size. To calculate the maximum current rating/ conductor, multiply the chart value by the appropriate conductor factor. The chart assumes cable is surrounded by still air at an ambient temperature of 25C. Current values are in RMS Amperes and are valid for copper conductors only. For conditions other than specified, contact Belden Engineering.

Note: Current ratings are intended as general guidelines low power electronic communications and control applications. Current ratings for power applications generally are set by regulatory agencies such as U.L., CSA, NEC, and others.



No. of Conductors*	Factors
1	1.6
2-3	1.0
4-5	.8
6-15	.7
16-30	.5

*Do not count shields unless used as a conductor.

Typical Characteristics of Popular Insulation and Jacket Compounds

PVC
Sometimes referred to as vinyl or Polyvinyl Chloride. Extremely high or low temperature properties cannot be found in one formulation. Certain formulations may have −40C to 105C rating. Other common vinyls may have −20C to 60C. There are thousands of formulations for the many different applications. The many varieties of PVC also differ in pliability and electrical properties fitting a multitude of applications. The price range can vary accordingly. Typical dielectric constant values can vary from 3.5 to 6.5.

Polyethylene (Solid and Cellular)
A very good insulation in terms of electrical properties. Low dielectric value, a constant dielectric value over all frequencies, very high insulation resistance. In terms of flexibility, polyethylene can be rated stiff to very hard, depending on molecular weight and density—low density being the most flexible, with high-density, high-molecular weight formulation being rock hard. Moisture resistance is rated excellent. Correct brown and black formulations have excellent weather resistance. The dielectric constant is 2.3 for solid insulation and 1.64 for cellular designs.

Teflon®
This material has excellent electrical properties, temperature range and chemical resistance. This material is not suitable where subjected to nuclear radiation and it does not have good high voltage characteristics. FEP® Teflon is extrudable in a manner similar to PVC and polyethylene. This means that long wire and cable lengths are available. TFE® Teflon is extrudable in a hydraulic ram type process. Lengths are limited due to amount of material in the ram, thickness of the insulation and core size. TFE must be extruded over silver or nickel-coated wire. The nickel and silver-coated designs are rated 260C and 200C maximum, respectively. The cost of Teflon is approximately 8 to 10 times more per pound than PVC insulations.

Polypropylene (Solid and Cellular)
Similar in electrical properties to polyethylene. This material is primarily used as an insulation material. Typically, it is harder than polyethylene. This makes it suitable for thin wall insulations. U.L. maximum temperature rating may be 60C or 80C. Most U.L. styles call for 60C maximum. The dielectric constant is 2.25 for solid and 1.55 for cellular designs.

Silicone
This is a very soft insulation which has a temperature range from −80C to 200C. It has excellent electrical properties plus, ozone resistance, low moisture absorption, weather resistance, and radiation resistance. It typically has low mechanical strength and poor scuff resistance.

Neoprene
The temperature range of this material can vary from −55C to 90C. The actual range would depend on the formulation used. Neoprene is both oil resistant and sunlight resistant making it ideal for many outdoor applications. The most stable colors are black, dark brown and gray. The electrical properties are not as good as other insulation material. Because of this, thicker insulation should be used. The typical designs where this material is used are as separate lead wires or cable jackets.

Rubber
The description of rubber normally includes natural rubber and SBR compounds. Both of these materials can be used for insulations and jackets. There are many formulations of these basic materials. Each formulation is for a specific application. Some formulations are suitable for −55C minimum, while others are suitable for 75C maximum.

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Table 5

Comparative Properties of Rubber Insulations

	Rubber	Neoprene	Hypalon® (Chlorosulfonated Polyethylene)	EPDM (Ethylene-Propylene-Diene Monomer)	Silicone
Oxidation Resistance	F	G	E	G	E
Heat Resistance	F	G	E	E	O
Oil Resistance	P	G	G	F	F-G
Low Temperature Flexibility	G	F-G	F	G-E	O
Weather, Sun Resistance	F	G	E	E	O
Ozone Resistance	P	G	E	E	O
Abrasion Resistance	E	G-E	G	G	P
Electrical Properties	E	P	G	E	O
Flame Resistance	P	G	G	P	F-G
Nuclear Radiation Resistance	F	F-G	G	G	E
Water Resistance	G	E	G-E	G-E	G-E
Acid Resistance	F-G	G	E	G-E	F-G
Alkali Resistance	F-G	G	E	G-E	F-G
Gasoline, Kerosene, Etc. *(Aliphatic Hydrocarbons)* Resistance	P	G	F	P	P-F
Benzol, Toluol, Etc. *(Aromatic Hydrocarbons)* Resistance	P	P-F	F	F	P
Degreaser Solvents *(Halogenated Hydrocarbons)* Resistance	P	P	P-F	P	P-G
Alcohol Resistance	G	F	G	P	G

P = Poor F = Fair G = Good E = Excellent O = Outstanding
These ratings are based on average performance of general purpose compounds. Any given property can usually be improved by the use of selective compounding.

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Technical Information
Table 6

Comparative Properties of Plastic Insulations

	PVC	Low-Density Polyethylene	Cellular Polyethylene	High-Density Polyethylene	Polypropylene	Cellular Polypropylene	Polyurethane	Nylon	Teflon
Oxidation Resistance	E	E	E	E	E	E	E	E	O
Heat Resistance	G-E	G	G	E	E	E	G	E	O
Oil Resistance	F	G	G	G-E	F	F	E	E	O
Low Temperature Flexibility	P-G	G-E	E	E	P	P	G	G	O
Weather, Sun Resistance	G-E	E	E	E	E	E	G	E	O
Ozone Resistance	E	E	E	E	E	E	E	E	E
Abrasion Resistance	F-G	F-G	F	E	F-G	F-G	O	E	E
Electrical Properties	F-G	E	E	E	E	E	P	P	E
Flame Resistance	E	P	P	P	P	P	P	P	O
Nuclear Radiation Resistance	G	G	G	G	F	F	G	F-G	P
Water Resistance	E	E	E	E	E	E	P-G	P-F	E
Acid Resistance	G-E	G-E	G-E	G-E	E	E	F	P-F	E
Alkali Resistance	G-E	G-E	G-E	G-E	E	E	F	E	E
Gasoline, Kerosene, Etc. *(Aliphatic Hydrocarbons)* Resistance	P	P-F	P-F	P-F	P-F	P	P-G	G	E
Benzol, Toluol, Etc. *(Aromatic Hydrocarbons)* Resistance	P-F	P	P	P	P-F	P	P-G	G	E
Degreaser Solvents *(Halogenated Hydrocarbons)* Resistance	P-F	P	P	P	P	P	P-G	G	E
Alcohol Resistance	G-E	E	E	E	E	E	P-G	P	E

P = Poor F = Fair G = Good E = Excellent O = Outstanding
These ratings are based on average performance of general purpose compounds. Any given property can usually be improved by the use of selective compounding.

Technical Information
Table 7

Nominal Temperature Range/Insulating and Jacketing Compounds

Compound	Normal Low	Normal High	Special Low	Special High
Chlorosulfonated Polyethylene	−20C	90C	−40C	105C
EPDM *(Ethylene-Propylene-Diene Monomer)*	−55C	105C	—	—
Neoprene	−20C	60C	−55C	90C
Polyethylene *(Solid and Cellular)*	−60C	80C	—	—
Polypropylene *(Solid and Cellular)*	−40C	105C	—	—
Rubber	−30C	60C	−55C	75C
FEP Teflon◑	−70C	200C	—	—
PVC	−20C	80C	−55C	105C
Silicone	−80C	150C	—	200C
Halar◐	−70C	150C	—	—
Tefzel◑	−65C	150C	—	180C
TFE Teflon◑	−70C	260C	—	—

◑DuPont trademark
◐Allied Chemical trademark

RG Coaxial and Triaxial Reference Guide

Cable Designation	Belden No.	Page No.	Spec. Ref.	Strands/ Cond. Dia. Cond. Type (DCR-/MFT)	Diel. (O.D. In.)	Outer Cond. Type (DCR/MFT)	Jacket (O.D. In.)	Nom. Wt. (Lbs./ Ft.)	Nom. Zo (Ohms)	Nom. Cap. (pf/ft)	Sugg. Oper. Temp. (°C) Range	Max. Oper. Voltage (RMS)
RG-6A/U Type	8215	76	Belden	1/.028 CCS (32.0)	PE (.185)	97% BC (1.1)	PE (.332)	.07	75.0	20.5	−55, +80	2,700
RG-8/U	8237	76	JAN-C-17A	7/.0285 BC (1.87)	PE (.285)	97% BC (1.2)	PVC (.405)	.100	52.0	29.5	−40, +80	5,000
RG-8/U Type	9914	77	Belden	1/.101 BC (1.19)	FPE (.285)	97% TC (1.1)	PVC (.405)	.112	50.0	26.0	−40, +80	600
RG-8A/U	9251	76	MIL-C-17D	7/.0285 BC (1.87)	PE (.285)	97% BC (1.2)	PVC-NC (.405)	.102	52.0	29.5	−40, +80	5,000
8/U Type	8214	77	Belden	7/.036 BC (1.15)	FPE (.285)	97% BC (1.2)	PVC (.405)	.100	50.0	26.0	−40, +80	600
8/U Type TRIAX	9888	90	Belden	7/.036 BC (1.15)	FPE (.285)	Inner 97% BC (1.2) Outer 80% BC (2.1)	Inner PE (.370) Outer PE (.480)	.130	50.0	26.0	−55, +80	600
RG-9/U	8242	77	JAN-C-17A	7/.0285 SC (1.87)	PE (.280)	97% SC 96% BC (.7)	PVC-NC (.420)	.131	51.0	30.0	−40, +80	5,000
RG-11/U	8238	78	JAN-C-17A	7/.0159 TC (6.06)	PE (.285)	97% BC (1.2)	PVC (.405)	.091	75.0	20.5	−40, +80	5,000
RG-11/U Type	8213	78	Belden	1/.064 BC (2.6)	FPE (.285)	95% BC (1.1)	PE (.405)	.089	75.0	17.3	−55, +80	600
RG-11/U Type	9292	78	Belden	1/.064 BC (2.6)	FPE (.285)	100% TC (3.0)	PVC (.405)	.078	75.0	17.3	−40, +80	600
RG-11A/U	8261	78	MIL-C-17D	7/.0159 TC (6.06)	PE (.285)	97% BC (1.2)	PVC-NC (.405)	.087	75.0	20.5	−40, +80	5,000
M17/6-RG11	9212	78	MIL-C-17F	7/.0159 TC (6.06)	PE (.285)	97% BC (1.2)	PVC-NC (.405)	.087	75.0	20.5	−40, +80	5,000
11/U Type TRIAX	8233	90	Belden	1/.064 BC (2.5)	FPE (.285)	Inner 93% BC (2.5) Outer 80% BC (2.5)	Inner PE (.365) Outer PE (.475)	.112	75.0	17.3	−55, +80	600
11/U Type TRIAX	9232	90	Belden	19/.0128 BC (2.8)	FPE (.312)	Inner 90% BC (1.55) Outer 82% BC (1.7)	Inner PE (.392) Outer H (.520)	.139	75.0	17.3	−40, +80	600
RG-58/U	8240	79	JAN-C-17A	1/.032 BC (10.1)	PE (.116)	95% TC (4.1)	PVC (.195)	.025	53.5	28.5	−40, +80	1,900
RG-58A/U	8259	79	JAN-C-17A	19/.0071 TC (10.8)	PE (.116)	95% TC (4.1)	PVC (.195)	.025	50.0	30.8	−40, +80	1,900
RG-58C/U	8262	79	MIL-C-17F	19/.0071 TC (10.8)	PE (.116)	95% TC (4.1)	PVC-NC (.195)	.025	50.0	30.8	−40, +80	1,900
M17/28-RG58	9203	79	MIL-C-17F	19/.0072 TC (10.5)	PE (.116)	95% TC (4.1)	PVC-NC (.195)	.025	50.0	30.8	−40, +80	1,900
58A/U Type	8219	79	Belden	19/.008 TC (.8)	FPE (.114)	95% TC (4.1)	PVC (.195)	.023	50.0	26.0	−40, +80	200
58A/U Type TRIAX	9222	90	Belden	7/.0126 TC (9.46)	PE (.114)	Inner 95% TC (4.1) Outer 83% TC (4.3)	Inner PE (.175) Outer PVC (.240)	.037	50.0	30.8	−40, +80	1,900
RG-59/U	8241	80	JAN-C-17A	1/.0253 CCS (55)	PE (.146)	95% BC (2.6)	PVC (.240)	.037	73.0	21.0	−40, +80	2,300
RG-59/U Type Dual	9555	80	Belden	1/.023 CCS (47)	PE (.146)	95% BC (2.6)	PVC (.242)	.084	75.0	20.5	−40, +80	2,300
59/U Type	9244	81	Belden	1/.0253 CCS (55)	PE (.146)	86% BC (4.5)	PVC (.240)	.030	73.0	21.0	−40, +80	2,300
59/U Type	8221	81	Belden	1/.0253 CCS (55)	FPE (.146)	95% BC (2.6)	PVC (.240)	.032	80.0	16.3	−40, +80	300
RG-59B/U	8263	80	MIL-C-17D	1/.023 CCS (47)	PE (.146)	95% BC (2.6)	PVC-NC (.242)	.034	75.0	20.5	−40, +80	2,300

RG Coaxial and Triaxial Reference Guide (cont'd.)

Cable Designation	Belden No.	Page No.	Spec. Ref.	Strands/ Cond. Dia. Cond. Type (DCR-/MFT)	Diel. (O.D. In.)	Outer Cond. Type (DCR/MFT)	Jacket (O.D. In.)	Nom. Wt. (Lbs./ Ft.)	Nom. Zo (Ohms)	Nom. Cap. (pf/ft)	Sugg. Oper. Temp. (°C) Range	Max. Oper. Voltage (RMS)
M17/29-RG59	9204	80	MIL-C-17F	1/.023 CCS (47)	PE (.146)	95% BC (2.6)	PVC-NC (.242)	.034	75	20.5	−40, +80	2,300
59/U Type	9259	80, 182	Belden	7/.010 BC (15)	FPE (.146)	95% BC (2.6)	PVC (.242)	.035	75	17.3	−40, +80	300
59/U Type	9240	81	Belden	1/.032 CCS (61.5)	FPE (.146)	80% BC (5)	PVC (.240)	.026	75	17.3	−40, +80	300
59/U Type TRIAX	9267	90	Belden	1/.032 BC (10.1)	FPE (.146)	Inner 95% BC (2.6) Outer 82% BC (2.62)	Inner PE (.216) Outer H (.360)	.079	75	17.3	−40, +80	300
59/U Type TRIAX	8232	90	Belden	1/.032 CCS (34.5)	FPE (.143)	Inner 95% BC (2.6) Outer 80% BC (2.6)	Inner PE (.226) Outer PE (.315)	.053	75	17.3	−55, +80	300
RG-62/U	8254	84	JAN-C-17A	1/.0253 CCS (55)	SSPE (.146)	95% BC (2.6)	PVC (.238)	.033	93	13.5	−40, +80	700
62A/U Type	9268	84	Belden	1/.0253 CCS (41.2)	SSPE (.146)	95% BC (2.6)	PVC (.260)	.038	93	13.5	−40, +80	700
62A/U Type	9269	84	Belden	1/.0253 CCS (41.2)	SSPE (.146)	95% BC (2.6)	PVC (.240)	.033	93	13.5	−40, +80	700
M17/30-RG62	9862	84	MIL-C-17F	1/.0253 CCS (41.2)	SSPE (.146)	95% BC (2.6)	PVC (.242)	.033	93	13.5	−40, +80	700
RG-62B/U	8255	84	MIL-C-17D	7/.008 CCS (53.4)	SSPE (.146)	95% BC (2.6)	PVC-NC (.242)	.033	93	13.5	−40, +80	700
M17/157-00001 RG-122/U	9252	85	MIL-C-17F	27/.005 TC (17.1)	PE (.096)	97% TC (5.2)	PVC-NC (.160)	.017	50	30.8	−40, +80	1,900
RG-141A/U	83241	149	MIL-C-17D	1/.040 SCCS (16.3)	TFE (.116)	97% SC (4.26)	FG (.190)	.036	50	29.0	−55, +200	1,900
RG-142B/U	83242	149	MIL-C-17D	1/.040 SCCS (16.3)	TFE (.116)	96% SC 95% SC (2.3)	FEP (.195)	.050	50	29.0	−70, +200	1,900
RG-174/U	8216	85	MIL-C-17D	7/.0063 CCS (97)	PE (.060)	88% TC (10.3)	PVC (.101)	.0075	50	30.8	−40, +80	1,500
RG-178B/U	83265	149	MIL-C-17D	7/.004 SCCS (250)	TFE (.034)	96% SC (14.6)	FEP (.070)	.0055	50	29.0	−70, +200	1,000
RG-179B/U	83264	149	MIL-C-17D	7/.004 SCCS (250)	TFE (.063)	94% SC (8.5)	FEP (.100)	.010	75	19.5	−70, +200	1,200
RG-180B/U	83266	149	MIL-C-17D	7/.004 SCCS (250)	TFE (.102)	93% SC (6.5)	FEP (.140)	.020	95	15.0	−70, +200	1,500
RG-187A/U	83267	150	MIL-C-17D	7/.004 SCCS (250)	TFE (.063)	94% SCC (8.5)	TFE-T (.105)	.011	75	19.5	−70, +200	1,200
RG-188A/U	83269	150	MIL-C-17D	7/.0067 SCCS (91.2)	TFE (.060)	95% SCC (8.51)	TFE-T (.102)	.017	50	29.0	−70, +200	1,200
RG-196A/U	83270	150	MIL-C-17D	7/.004 SCCS (250)	TFE (.076)	96% SCC (14.6)	TFE-T (.076)	.008	50	29.0	−70, +200	1,200
RG-213/U	8267	85	MIL-C-17D	7/.0296 BC (1.73)	PE (.285)	97% BC (1.2)	PVC-NC (.405)	.100	50	30.8	−40, +80	5,000
M17/164-00001 RG-214/U	8268	85	MIL-C-17F	7/.0296 SC (1.73)	PE (.285)	95% SC 97% SC (.7)	PVC-NC (.425)	.125	50	30.8	−40, +80	5,000
M17/167-00001 RG-223/U	9273	85	MIL-C-17F	1/.036 SC (8.05)	PE (.116)	96% SC 95% SC (2.53)	PVC-NC .212	.035	50	30.8	−40, +80	1,900
RG-303/U	83282	150	MIL-C-17D	1/.0403 SC (16.3)	TFE (.116)	97% SCC (4.26)	FEP (.0302)	.030	50	29.0	−70, +200	1,900
RG-316/U	83284	150	MIL-C-17D	7/.0067 SCCS (91.2)	TFE (.060)	95% SC (8.5)	FEP (.170)	.012	50	29.0	−70, +200	1,200

or information on coax cables not listed in this table, please call Belden's Product Engineering Group (317/983-5200)

Notes to Table Inner conductors are entered as, Number of strands/strand diameter

Conductor Abbreviations

BC = Bare Copper
TC = Tin-Coated Copper
SC = Silver-Coated Copper
CCS = Copper-Clad Steel
SCCS = Silver-Coated Copper Clad Steel

Insulation Abbreviations

PE = Solid Polyethylene
FPE = Foamed Polyethylene
SSPE = Semi-Solid Polyethylene
FG = Fiberglass
H = Hypalon

PVC = Polyvinyl Chloride
PVC-NC = Non-Contaminating Polyvinyl Chloride
TFE = Tetrafluoroethylene
FEP = Fluorinated Ethylene Propylene
TFE-T = TFE Tape Wrap

Color Code Chart No. 1

Cond.	Color
1st	Black
2nd	White
3rd	Red
4th	Green
5th	Brown
6th	Blue
7th	Orange
8th	Yellow
9th	Purple
10th	Gray
11th	Pink
12th	Tan

18 Gage conductors in cables 8446 through 8449 are Black and White.

Color Code Chart No. 2 and 2R (ICEA—Insulated Cable Engineers Association Standard)

2R—These cables feature a ring band striping. 2—These cables feature a spiral stripe.

Cond.	Color	Cond.	Color	Cond.	Color	Cond.	Color
1st	Black	14th	Green/White	27th	Blue/Black/White	40th	Red/White/Green
2nd	White	15th	Blue/White	28th	Black/Red/Green	41st	Green/White/Blue
3rd	Red	16th	Black/Red	29th	White/Red/Green	42nd	Orange/Red/Green
4th	Green	17th	White/Red	30th	Red/Black/Green	43rd	Blue/Red/Green
5th	Orange	18th	Orange/Red	31st	Green/Black/Orange	44th	Black/White/Blue
6th	Blue	19th	Blue/Red	32nd	Orange/Black/Green	45th	White/Black/Blue
7th	White/Black	20th	Red/Green	33rd	Blue/White/Orange	46th	Red/White/Blue
8th	Red/Black	21st	Orange/Green	34th	Black/White/Orange	47th	Green/Orange/Red
9th	Green/Black	22nd	Black/White/Red	35th	White/Red/Orange	48th	Orange/Red/Blue
10th	Orange/Black	23rd	White/Black/Red	36th	Orange/White/Blue	49th	Blue/Red/Orange
11th	Blue/Black	24th	Red/Black/White	37th	White/Red/Blue	50th	Black/Orange/Red
12th	Black/White	25th	Green/Black/White	38th	Black/White/Green		
13th	Red/White	26th	Orange/Black/White	39th	White/Black/Green		

Color Code Chart No. 3 for Paired Cables (Belden Standard)

Pair No.	Color Combination	Pair No.	Color Combination	Pair No.	Color Combination	Pair No.	Color Combination
1	Black paired with Red	11	Red paired with Yellow	21	White paired with Brown	31	Purple paired with White
2	Black paired with White	12	Red paired with Brown	22	White paired with Orange	32	Purple paired with Dark Green
3	Black paired with Green	13	Red paired with Orange	23	Blue paired with Yellow	33	Purple paired with Light Blue
4	Black paired with Blue	14	Green paired with White	24	Blue paired with Brown	34	Purple paired with Yellow
5	Black paired with Yellow	15	Green paired with Blue	25	Blue paired with Orange	35	Purple paired with Brown
6	Black paired with Brown	16	Green paired with Yellow	26	Brown paired with Yellow	36	Purple paired with Black
7	Black paired with Orange	17	Green paired with Brown	27	Brown paired with Orange	37	Gray paired with White
8	Red paired with White	18	Green paired with Orange	28	Orange paired with Yellow		
9	Red paired with Green	19	White paired with Blue	29	Purple paired with Orange		
10	Red paired with Blue	20	White paired with Yellow	30	Purple paired with Red		

Color Code Chart No. 4 for Paired Cables

Pair No.	Color	Pair No.	Color	Pair No.	Color	Pair No.	Color	Pair No.	Color
1st	White/Blue	6th	Red/Blue	11th	Black/Blue	16th	Yellow/Blue	21st	Violet/Blue
2nd	White/Orange	7th	Red/Orange	12th	Black/Orange	17th	Yellow/Orange	22nd	Violet/Orange
3rd	White/Green	8th	Red/Green	13th	Black/Green	18th	Yellow/Green	23rd	Violet/Green
4th	White/Brown	9th	Red/Brown	14th	Black/Brown	19th	Yellow/Brown	24th	Violet/Brown
5th	White/Slate	10th	Red/Slate	15th	Black/Slate	20th	Yellow/Slate	25th	Violet/Slate

Color Code Chart No. 5 for Paired Cables (Western Electric Standard)

Pair No.	Color Combination	Pair No.	Color Combination	Pair No.	Color Combination	Pair No.	Color Combination	Pair No.	Color Combination
1	White–Blue Stripe Blue–White Stripe	6	Red–Blue Stripe Blue–Red Stripe	11	Black–Blue Stripe Blue–Black Stripe	16	Yellow–Blue Stripe Blue–Yellow Stripe	21	Purple–Blue Stripe Blue–Purple Stripe
2	White–Orange Stripe Orange–White Stripe	7	Red–Orange Stripe Orange–Red Stripe	12	Black–Orange Stripe Orange–Black Stripe	17	Yellow–Orange Stripe Orange–Yellow Stripe	22	Purple–Orange Stripe Orange–Purple Stripe
3	White–Green Stripe Green–White Stripe	8	Red–Green Stripe Green–Red Stripe	13	Black–Green Stripe Green–Black Stripe	18	Yellow–Green Stripe Green–Yellow Stripe	23	Purple–Green Stripe Green–Purple Stripe
4	White–Brown Stripe Brown–White Stripe	9	Red–Brown Stripe Brown–Red Stripe	14	Black–Brown Stripe Brown–Black Stripe	19	Yellow–Brown Stripe Brown–Yellow Stripe	24	Purple–Brown Stripe Brown–Purple Stripe
5	White–Gray Stripe Gray–White Stripe	10	Red–Gray Stripe Gray–Red Stripe	15	Black–Gray Stripe Gray–Black Stripe	20	Yellow–Gray Stripe Gray–Yellow Stripe	25	Purple–Gray Stripe Gray–Purple Stripe

Literature Available from Belden

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Catalogs and Sales Aids

- ☐ Master Catalog 885
- ☐ Fiber Optic Catalog
- ☐ CATV Catalog
- ☐ Shield Selection Guide
- ☐ Extended Distance Data Brochure
- ☐ A Guide to Fiber Optics
- ☐ Wire and Cable Reference Glossary
- ☐ Conduit Capacity Chart
- ☐ A Guide to Fiber Optic System Design

Application Reports

- ☐ Telecable Chooses Belden Drop Cable with Duobond® Plus Shield
- ☐ ABC Uses Belden Cable to Broadcast Challenger Space Launch
- ☐ Rixon Adopts Belden S.H.E. Connector
- ☐ Belden Shielded Cable Decreases Electromagnetic Interference
- ☐ Rose Bowl Parade Broadcast by Belden Cable
- ☐ Why Buy Whirlwind
- ☐ Belden Broadcast Cable—The Industry Standard
- ☐ Belden Cable Carries the Olympics to 2.5 Billion People
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- ☐ Caltec Cablevision Chooses Belden RG-6/U Type Drop Cable
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- ☐ Fiber Optics in a Canadian Military Environment
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- ☐ Belden Fiber Optical Cable at Notre Dame
- ☐ Unreel Cartons Speed Cable Pulling by 60%
- ☐ A-1 Audio Hooks Up With Belden
- ☐ Two Indianapolis Cable Franchises Link-Up With Fiber Optics

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- ☐ Selection and Installation of CCTV Cable (T/8-45)
- ☐ Flat Cable Shield Performance (T/8-46)
- ☐ Portable and Heater Cordage (T/18-8)
- ☐ Attachment of AMP Fiber Optic Connector (T/FO-5)
- ☐ Attachment of SMA Style Fiber Optic Connectors (T/FO-8)
- ☐ Fiber Optic Single Fiber Connector (T/FO-10)

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Glossary of Terms

Fiber Optic terms listed separately on page 248.

A	Ampere.
Abrasion Resistance	Ability to resist surface wear.
AC	Alternating current.
Accelerated Aging	A test that duplicates long time environmental conditions in a relatively short time.
AF	Audio frequency.
AGC	Automatic gain control.
AM	Amplitude modulation.
Ambient	Conditions existing at a test or operating location prior to energizing of equipment (example: ambient temperature).
Ampere	A standard unit of current. Designated as the amount of current that occurs when one volt of emf is applied across one ohm of resistance. An ampere of current is produced by one coulomb of charge passing a point in one second.
Analog	Representation of data by continuously variable quantities.
Amplitude	The maximum value of a varying wave form.
Anneal	To soften and relieve strains in any solid material, such as metal or glass, by heating to just below its melting point and then slowly cooling it. This also generally lowers the tensile strength of the material, while improving its flex life.
Attenuation	The decrease in magnitude of a wave as it travels through any transmitting medium, such as a cable or circuitry. Attenuation is measured as a ratio or as the logarithm of a ratio (decibel).
Attenuation Constant	A rating for a cable or other transmitting medium, which is the relative rate of amplitude decrease of voltage or current in the direction of travel. It is measured in decibels per unit length of cable.
Audio	A term used to describe sounds within the range of human hearing. Also used to describe devices which are designed to operate within this range.
Audio Frequency	That range of frequencies lying within the range of human hearing: approximately 20 to 20,000 Hz.
AWG	American Wire Gage. A wire diameter specification. The lower the AWG number, the larger the wire diameter.
Balanced Line	A cable having two identical conductors with the same electromagnetic characteristics in relation to other conductors and to ground.
Balun	A device for matching an unbalanced coaxial transmission line to a balanced two-wire system. Normally also gives impedance transformation, as 300 ohm balanced to 75 ohm unbalanced.
Bandwidth	The difference between the upper and lower limits of a given band of frequencies. Expressed in Hertz.
Baud	Unit of data transmission speed meaning bits per second 500 baud = 500 bits per second.
Bel	A unit that represents the logarithm of the ratio of two levels. The number of bels is equal to the logarithm $_{10}$ of (P_1/P_2) 2 logarithm$_{10}$ (E_1/E_2) and 2 logarithm$_{10}$ (I_1/I_2). See dB.
Beldfoil®	Belden trademark for highly effective electrostatic shield using reinforced metallic foil.
Beldsol®	Solderable Belden magnet wire combining films of polyurethane for excellent dielectric characteristics and Nylon for mechanical protection.
BEV	One billion electron volts.
Binder	A tape or thread used for holding assembled cable components in place.
Bit	One binary digit.
Bonding	The method used to produce good electrical contact between metallic parts of any device. Used extensively in automobiles and aircraft to prevent static buildup. Also refers to the connectors and straps used to bond equipment.
Booster	A device inserted into a line (or cable) to increase the voltage. Boosting generators are also used to raise the level of a dc line. Transformers are usually employed to boost ac voltages. The term booster is also applied to antenna preamplifiers.
Braid	A group of textile or metallic filaments interwoven to form a tubular structure which may be applied over one or more wires, or flattened to form a strap.

Glossary of Terms

Fiber Optic terms listed separately on page 248.

Bunch Strand	Conductors twisted together with the same lay and direction without regard to geometric pattern.
Bus-bar Wire	Uninsulated tinned copper wire used as a common lead.
Butyl Rubber	A synthetic rubber with good electrical insulating properties.
Byte	A group of adjacent binary digits. (8 bits)
C	Symbol designation for: capacitance, bias supply and centigrade.
Cabling	The method by which a group of insulated conductors is mechanically assembled (or twisted together).
Capacitance	The ability of a dielectric material between conductors to store electricity, when a difference of potential exists between the conductors. The unit of measurement is the farad, which is the capacitance value which will store a charge of one coulomb when a one-volt potential difference exists between the conductors. In ac, one farad is the capacitance value which will permit one ampere of current, when the voltage across the capacitor changes at a rate of one volt per second.
Capacitive Reactance	The opposition to alternating current due to the capacitance of a capacitor, cable or circuit. It is measured in ohms and is equal to 1/6.28fC where f is the frequency in Hz and C is the capacitance in farads.
Capacitor	Two conducting surfaces separated by a dielectric material. The capacitance is determined by the area of the surfaces, type of dielectric, and spacing between the conducting surfaces.
CATV	Community antenna television.
CB	Citizens band.
CCTV	Closed-circuit television.
Cellular Polyethylene	Expanded or "foam" polyethylene, consisting of individual closed cells of inert gas suspended in a polyethylene medium, resulting in a desirable reduction of dielectric constant.
Circuit	A system of conducting mediums designed to pass an electric current.
Circular Mil	A term used to define cross sectional areas using an arithmetic short-cut in which the area of a round wire is taken as "diameter in mils (.001″) squared," hence one circular mil is equal to $\pi/4$ square mils.
Coaxial Cable	A cylindrical transmission line comprised of a conductor centered inside a metallic tube or shield, separated by a dielectric material, and usually covered by an insulating jacket.
Coil Effect	The inductive effect exhibited by a spiral-wrapped shield, especially above audio frequencies.
Concentric Stranding	A group of uninsulated wires twisted together and containing a center core with subsequent layers spirally wrapped around the core to form a single conductor.
Conductivity	The ability of a material to allow electrons to flow, measured by the current per unit of voltage applied. Also, it is the reciprocal of resistivity.
Conductor	A material suitable for carrying an electric current.
Copperweld®	Trademark of Copperweld Steel Co. for copper-clad steel conductor.
Cord	A very flexible insulated cable.
Corona	The ionization of gasses about a conductor that results when the potential gradient reaches a certain value. Also called brush discharge.
Coupling	The transfer of energy between two or more cables or components of a circuit.
CPS	Cycles per second. This is an obsolete designation and is now called Hertz (Hz).
CPU	Central Processing Unit.
Crosstalk	A type of interference caused by audio frequencies from one line being coupled into adjacent lines. The term is loosely used also to include coupling at higher frequencies.
CRT	Cathode Ray Tube.
Current, Alternating (ac)	An electric current that periodically reverses direction of electron flow. The rate at which a full cycle occurs in a given unit of time (generally a second) is called the frequency of the current.
Current, Direct (dc)	Electrical current whose electrons flow in one direction only. It may be constant or pulsating as long as their movement is in the same direction.

Glossary of Terms

Fiber Optic terms listed separately on page 248.

Current Loop	A two wire transmit/receive interface.
Cut-through Resistance	The ability of a material to withstand mechanical pressure without damage.
dB	Decibel.
DC	Direct current. (See current, direct.)
DC Resistance	See resistance.
Decibel (dB)	One-tenth of a bel. It is equal to 10 times the logarithm of the power ratio, 20 times the log of the voltage ratio, or 20 times the log of the current ratio. One decibel is the amount by which the pressure of a pure sine wave of sound must be varied in order for the change to be detected by the average human ear. The decibel can express an actual level only when comparing with some definite reference level that is assumed to be zero dB.
Delay Line	An artificial or real transmission line or equivalent device designed to delay a wave or signal for a specific length of time.
Dielectric	An insulating (nonconducting) medium.
Dielectric Breakdown	Any change in the properties of a dielectric that causes it to become conductive. Normally a catastrophic failure of an insulation because of excessive voltage.
Dielectric Constant	Also called permittivity. That property of a dielectric which determines the amount of electrostatic energy that can be stored by the material when a given voltage is applied to it. Actually, the ratio of the capacitance of a capacitor using the dielectric to the capacitance of an identical capacitor using a vacuum as a dielectric.
Dielectric Heating	The heating of an insulating material when placed in a radio-frequency field, caused by internal losses during the rapid polarization reversal of molecules in the material.
Dielectric Loss	The power dissipated in a dielectric as the result of the friction produced by molecular motion when an alternating electric field is applied.
Digital	Representation of data by discrete characters.
Distortion	An undesired change in wave form as the signal passes through a device.
Distribution Cable	In a CATV system, the transmission cable from the distribution amplifier to the drop cable.
Drain Wire	An uninsulated wire in contact with a shield throughout its length, and used for terminating the shield.
Drop Cable	In a CATV system, the transmission cable from the distribution cable to a dwelling.
Duobond II®	Laminated shielding tape consisting of heat sensitive adhesive, aluminum foil, polyester, aluminum foil.
Duofoil®	Belden trademark for a shield in which metallic foil is applied to both sides of a supporting plastic film.
E	Voltage (electromotive force).
EIA	Electronic Industries Association (formerly RMA or RETMA).
Earth	British terminology for zero-reference ground.
Elastomer	Any material that will return to its original dimensions after being stretched or distorted.
Electromagnetic	Referring to the combined electric and magnetic fields caused by electron motion through conductors.
Electromagnetic Coupling	The transfer of energy by means of a varying magnetic field. Inductive coupling.
Electron Volt	A measure of the energy gained by an electron falling through an electric field produced by one volt.
Electrostatic	Pertaining to static electricity, or electricity at rest. An electric charge, for example.
Electrostatic Coupling	The transfer of energy by means of a varying electrostatic field. Capacitive coupling.
EMF	Electromotive force (voltage).
Energy	The capability of doing work.
Energy Dissipation	Loss of energy from a system due to the conversion of work into undesirable forms. An example of this is heat loss that is due to friction in a mechanical system.

Glossary of Terms

Fiber Optic terms listed separately on page 248.

EPDM	Ethylene-propylene-diene monomer rubber. A material with good electrical insulating properties.
EPR	Ethylene-propylene copolymer rubber. A material with good electrical insulating properties.
Equilay	More than one layer of helically laid wires with the direction of lay reversed for successive layers, but with the length of lay the same for each layer.
EV	Electron volt.
Expanded Polyethylene	See cellular polyethylene.
F	Frequency.
Farad	A unit of capacity that will store one coulomb of electrical charge when one volt of electrical pressure is applied.
Feedback	Energy that is extracted from a high-level point in a circuit and applied to a lower level. Positive feedback reduces the stability of a device and is used to increase the sensitivity or produce oscillation in a system. Negative feedback, also called inverse feedback, increases the stability of a system as the feedback in an amplifier improves stability and fidelity.
Feeder Cable	In a CATV system, the transmission cable from the head end (signal pickup) to the trunk amplifier. Also called a trunk cable.
Ferrous	Composed of and/or containing iron. A ferrous metal exhibits magnetic characteristics as opposed to a non-ferrous metal, such as aluminum, which does not.
FEP	Fluorinated ethylene-propylene. A thermo-plastic material with good electrical insulating properties and chemical and heat resistance.
Field	An area through which electric and/or magnetic lines of force pass.
Fillers	Nonconducting components cabled with the insulated conductors, to impart roundness, flexibility, tensile strength, or a combination of all three, to the cable.
Flex Life	The ability of a cable to bend many times before breaking.
Flexibility	The ability of a cable to bend in a short radius (also see limpness).
Floating	Referring to a circuit which has no connection to ground.
FM	Frequency modulation.
Frequency	The number of times a periodic action occurs in a unit of time. The number of cycles that an electric current completes in 1 second.
Frequency, Power	Normally, the 50 or 60 cycle power available in residential areas.
Frequency Response	The characteristic of a device denoting the range of frequencies over which it may be used effectively.
Foam Polyethylene	See cellular polyethylene.
Gain	The increase of voltage, current or power over a standard or previous reading. Usually expressed in decibels.
Geophysical Cable	Cable used in exploring for underground oil deposits.
Geosol™	A solderable, extra tough film insulation developed by Belden for use in geophysical cables and miniature cables.
Gimmick	A short length of wire which is soldered onto a circuit component and used as a small adjustable capacitor. A gimmick is often two short insulated wires that are twisted together to form a capacitor.
GND	Ground.
Ground	An electrical connection to the earth, generally through a ground rod. Also a common return to a point of zero potential, such as the metal chassis in radio equipment.
Ground Loop	A completed circuit between shielded pairs of a multiple pair cable created by random contact between the shields. An undesirable circuit condition in which interference is created by ground currents when grounds are connected at more than one point.

Glossary of Terms

Fiber Optic terms listed separately on page 248.

Ground Potential	The potential of the earth. A circuit, terminal or chassis is said to be at ground potential when it is used as a reference point for other potentials in the system.
H	Symbol designation for: Magnetic intensity and henry.
Hash	A type of interference produced by man-made devices, particularly those which experience arcing as contacts open and close. Automotive voltage regulators and power-supply vibrators are two common examples.
Henry	A practical unit of inductance that will produce a voltage drop of one volt when the current changes at the rate of one ampere per second. (abbreviated H.)
Hertz	The unit of frequency, one cycle per second.
HF	High frequency.
High Frequency	The band from 3 to 30 Hz in the radio spectrum, as designated by the Federal Communications Commission.
Hum	A term used to describe the 60- or 120-cps sound present in the sound of some communications equipment. Usually hum is the result of undesired coupling to a 60-cps source or to the defective filtering of 120-cps ripple output of a rectifier.
Hypalon	A DuPont trade name for a synthetic rubber (chlorosulfonated polyethylene) used as insulating and jacketing materials for wire and cable.
I	Symbol used to designate current.
IF	Intermediate-frequency.
Impedance	The total opposition a circuit, cable or component offers to alternating current. It includes both resistance and reactance and is generally expressed in ohms.
Impedance, Characteristic	In a transmission cable of infinite length, the ratio of the applied voltage to the resultant current at the point the voltage is applied. Or, the impedance which makes a transmission cable seem infinitely long, when connected across the cable's output terminals. For a wave guide, it is the ratio of rms voltage to total rms longitudinal current at certain points on a diameter, when the wave guide is match-terminated.
Impedance, High	Generally, the area of 25,000 ohms or higher.
Impedance, Low	Generally, the area of 1 through 600 ohms.
Impedance Match	A condition whereby the impedance of a particular circuit cable or component is the same as the impedance of the circuit, cable or device to which it is connected.
Impedance Matching Stub	A section of transmission line or a pair of conductors cut to match the impedance of a load. Also called matching stub.
Impedance Matching Transformer	A transformer designed to match the impedance of one circuit to that of another.
Impulse	See pulse.
Inductance	A property of a conductor or circuit which resists a change in current. It causes current changes to lag behind voltage changes and is measured in henrys.
Induction	The phenomenon of a voltage, magnetic field or electrostatic charge being produced in an object by lines of force from the source of such fields.
Induction Heating	Heating a conducting material by placing it in a rapidly changing magnetic field. The changing field induces electric currents in the material and I^2R losses account for the resultant heat.
Input	A signal (or power) which is applied to a piece of electric apparatus, or the terminals on the apparatus to which a signal or power is applied.
Insertion Loss	A measure of the attenuation of a device by determining the output of a system before and after the device is inserted into the system.
Insulation	A material having good dielectric properties which is used to separate close electrical components, such as cable conductors and circuit components.
Insulation Stress	The molecule separation pressure caused by a potential difference across an insulator. The practical stress on insulation is expressed in volts per mil.

Glossary of Terms

Fiber Optic terms listed separately on page 248.

Interface	The place where two systems or a major and a minor system meet and interact with each other.
Interference	Disturbances of an electrical or electromagnetic nature that introduce undesirable responses into other electronic equipment.
Intermediate Frequency	A frequency to which a signal is converted for ease of handling. Receives its name from the fact that it is an intermediate step between the initial and final conversion or detection stages.
Ionization	The formation of ions. Ions are produced when polar compounds are dissolved in a solvent and when a liquid, gas or solid is caused to lose or gain electrons due to the passage of an electric current.
Ionization Voltage	The potential at which a material ionizes. The potential at which an atom gives up an electron.
IPCEA	Insulated Power Cable Engineers Association.
I^2R	Formula for power in watts, where I = current in amperes, R = resistance in ohms. Also see watt.
IR Drop	A method of designating a voltage drop in terms of both current and resistance.
IRS	Ignition radiation suppression.
Isolation	The ability of a circuit or component to reject interference, usually expressed in db.
Jacket	Pertaining to wire and cable, the outer sheath which protects against environment and may also provide additional insulation.
Kev	1000 electron volts.
Kilo	Prefix meaning thousand.
KV	Kilovolt (1000 volts).
KVA	Kilovolt ampere.
KW	Kilowatt.
L	Symbol for inductance.
Lay	Pertaining to wire and cable, the axial distance required for one cabled conductor or conductor strand to complete one revolution about the axis around which it is cabled.
Lay Direction	The twist in the cable as indicated by the top strands while looking along the axis of the cable away from the observer. Described as "right hand" or "left hand."
Lead Dress	The placement or routing of wiring and component leads in an electrical circuit.
Lead-in	The conductor that provides the path for r-f energy between the antenna and the radio/television receiver or transmitter.
Leakage	The undesirable passage of current over the surface of or through an insulator.
Level	A measure of the difference between a quantity or value and an established reference.
LF	Low frequency.
Limpness	The ability of a cable to lay flat or conform to a surface as with microphone cables (also see flexibility).
Line Drop	A voltage loss occurring between any two points in a power or transmission line. Such loss, or drop, is due to the resistance, reactance or leakage of the line.
Line Equalizer	A reactance (inductance and/or capacitance) connected in series with a transmission line to alter the frequency-response characteristics of the line.
Line Level	The level of a signal at a certain point on a transmission line. Usually expressed in decibels.
Line Voltage	The value of the potential existing on a supply or power line.
Load	A device that consumes or converts the power delivered by another device.
Loaded Line	A transmission line that has lumped elements (inductance or capacitance) added at uniformly spaced intervals. Loading is used to provide a given set of characteristics to a transmission line.
Loading	See loaded line.

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Long-wire Antenna	Any conductor length in excess of one-half of a wavelength. In a residential television installation, a horizontal run of unshielded lead-in will act as a long-wire antenna and introduce additional signal on top of the regular antenna signal, causing ghosts.
Loss	The portion of energy applied to a system that is dissipated and performs no useful work.
Lossy	Having poor efficiency.
Low Frequency	A band of frequencies extending from 30 to 300 kc in the radio spectrum, designated by the Federal Communications Commission.
M	Mutual inductance.
MA	Milliampere (one-thousandth of an ampere).
Mega	Prefix meaning million.
MEV	One million electron volts.
MFD	Microfarad (one-millionth of a farad).
MHO	The unit of conductance, equal to the reciprocal of the unit of resistance (ohm).
MHz	Megahertz (one million cycles per second). Formerly mc.
Micro	Prefix meaning one-millionth.
Microfarad	One-millionth of a farad (uf, ufd, mf, and mfd are common abbreviations).
Micromicrofarad	One-millionth of a microfarad (uuf, uufd, mmf, mmfd are common abbreviations). Also, a picofarad (pf or pfd).
Microphonics	Noise caused by mechanical excitation of a system component. In a single-conductor microphone cable, for example, microphonics can be caused by the shield rubbing against the dielectric, as the cable is flexed.
Mil	A unit of length equal to one thousandth of an inch.
Milli	Prefix meaning one-thousandth.
MMF or MMFD	Abbreviation for micromicrofarad (one-millionth of one-millionth of a farad). A picofarad (pf or pfd).
Modem	Device that converts signals in one form to another form compatible with another kind of equipment.
Mono Filament	A single strand filament as opposed to a braided or twisted filament.
Mutual Capacitance	Capacitance between two conductors when all other conductors are connected together.
MV	Millivolt (one-thousandth of a volt).
MW	Milliwatt (one-thousandth of a watt).
Mylar®	DuPont trademark for polyethylene terephtalate (polyester) film.
Nanosecond	One thousandth of one millionth of a second (10^{-9} seconds).
NBR	Butadiene-acrylonitrile copolymer rubber, a material with good oil and chemical resistance.
NEC	National Electric Code.
NEMA	National Electrical Manufacturers Association.
Neoprene	A synthetic rubber with good resistance to oil, chemical, and flame. Also called polychloroprene.
Nibble	One half byte (4 bits).
Noise	In a cable or circuit, any extraneous sound or signal which tends to interfere with the sound or signal normally present in or passing through the system.
Nomex®	DuPont trademark for a temperature-resistant, flame-retardant nylon.
Nylon	An abrasion-resistant thermoplastic with good chemical resistance.
Ohm	The electrical unit of resistance. The value of resistance through which a potential difference of one volt will maintain a current of one ampere.

Glossary of Terms

Fiber Optic terms listed separately on page 248.

Ohm's Law	Stated E = IR, I = E/R or R = E/I, the current I in a circuit is directly proportional to the voltage E, and inversely proportional to the resistance R.
Output	The useful power or signal delivered by a circuit or device.
Ozone	Extremely reactive form of oxygen, normally occurring around electrical discharges and present in the atmosphere in small but active quantities. In sufficient concentrations it can break down certain rubber insulations under tension (such as a bent cable).
Parallel Circuit	A circuit in which the identical voltage is presented to all components, and the current divides among the components according to the resistances or the impedances of the components.
Patchcord	A flexible piece of electrical cord terminated at both ends with plugs, used for interconnecting circuits on a patchboard.
Peak	The maximum instantaneous value of a varying current or voltage. Also called crest.
Periodicity	The uniformly spaced variations in the insulation diameter of a transmission cable that result in reflections of a signal, when its wavelength or a multiple thereof is equal to the distance between two diameter variations.
Phase	The location of a position on a wave form of an alternating quality, in relation to the start of a cycle. Measured in degrees, with 360° corresponding to one complete cycle.
Phase Shift	A change in the phase relationship between two alternating quantities.
Pickup	Any device which is capable of transforming a measurable quantity of intelligence (such as sound) into relative electrical signals, e.g., a microphone.
Pico	Prefix meaning one-millionth of one-millionth (10^{-12}).
Picofarad	One-millionth of one-millionth of a farad. A micromicrofarad or picofarad (abbreviation pf).
Plastic	High polymeric substances, including both natural and synthetic products, but excluding the rubbers that are capable of flowing under heat and pressure.
Plasticizer	A chemical added to plastics to make them softer and more flexible.
Polybutadiene	A type of synthetic rubber often blended with other synthetic rubbers to improve their properties.
Polyethylene	A thermoplastic material having excellent electrical properties.
Polymer	A substance made of many repeating chemical units or molecules. The term polymer is often used in place of plastic, rubber or elastomer.
Polypropylene	A thermoplastic similar to polyethylene but stiffer and having higher softening point (temperature).
Polyurethane	Broad class of polymers noted for good abrasion and solvent resistance. Can be in solid or cellular form.
Polyvinyl Chloride	A general purpose thermoplastic used for wire and cable insulations and jackets.
Potting	Sealing by filling with a substance to exclude moisture.
Power	The amount of work per unit of time. Usually expressed in watts and equal to I^2R.
Power Loss	The difference between the total power delivered to a circuit, cable or device, and the power delivered by that device to a load.
Power Ratio	The ratio of the power appearing at the load, to the input power. Expressed in db, it is equal to $10 \log_{10} (P_2/P_1)$, where P_1 is input power and P_2 is the power at the load.
Propagation Delay	Time required for a signal to pass from the input to the output of a device.
Pulse	A current or voltage which changes abruptly from one value to another and back to the original value in a finite length of time. Used to describe one particular variation in a series of wave motions.
PVC	Polyvinyl chloride.
R	Symbol for resistance or resistor.
Radio Frequency	The frequencies in the electromagnetic spectrum that are used for radio communications.
Reactance	The opposition offered an alternating electron flow by a capacitance or inductance. The amount of such opposition varies with the frequency of the current. The reactance of a capacitor decreases with an increase in frequency; the opposite occurs with an inductance.

Glossary of Terms

Fiber Optic terms listed separately on page 248.

BELDEN

Reflection	The change in direction (or return) of waves striking a surface. For example, electromagnetic energy reflections can occur at an impedance mismatch in a transmission line, causing standing waves.
Resistance	In dc circuits, the opposition a material offers to current, measured in ohms. In ac circuits, resistance is the real component of impedance, and may be higher than the value measured at dc.
Resonance	An ac circuit condition in which inductive and capacitive reactances interact to cause a minimum or maximum circuit impedance.
Retractile Cord	A cord having specially treated insulation or jacket so that it will retract like a spring. Retractability may be added to all or part of a cord's length.
R-F	Radio-frequency.
RG/U	"RG" is the military designation for coaxial cable, and "U" stands for "general utility."
RMS	Root-mean-square.
Romex®	General Cable Company's trademark for nonmetallic sheathed cable.
Rope Strand	A conductor composed of a center group of twisted strands surrounded by layers of twisted strands.
Rubber (Wire Insulation)	A general term used to describe wire insulations made of thermosetting elastomers, such as natural or synthetic rubbers, neoprene, Hypalon, butyl rubber and others.
SAE	Society of Automotive Engineers.
SBR	A copolymer of styrene and butadiene. Also GR-S or Buna-S. Most commonly used type of synthetic rubber.
Semiconductor	In wire industry terminology, a material possessing electrical conduction properties that fall somewhere between conductors and insulators. Usually made by adding carbon particles to an insulator. Not the same as semiconductor materials such as silicon, germanium, etc., used for making transistors and diodes.
Separator	Pertaining to wire and cable, a layer of insulating material such as textile, paper, Mylar®, etc., which is placed between a conductor and its dielectric, between a cable jacket and the components it covers, or between various components of a multiple-conductor cable. It can be utilized to improve stripping qualities and/or flexibility, or can offer additional mechanical or electrical protection to the components it separates.
Series Circuit	A circuit in which the components are arranged end to end to form a single path for current.
Shield	A sheet, screen or braid of metal, usually copper, aluminum, or other conducting material placed around or between electric circuits or cables or their components, to contain any unwanted radiation, or to keep out any unwanted interference.
Shield Coverage	See shield percentage.
Shield Effectiveness	The relative ability of a shield to screen out undesirable radiation. Frequently confused with the term shield percentage, which it is not.
Shield Percentage	The physical area of a circuit or cable actually covered by shielding material expressed in percent.
Signal	Any visible or audible indication which can convey information. Also, the information conveyed through a communication system.
Silicone	A material made from silicon and oxygen. Can be in thermosetting elastomer or liquid form. The thermosetting elastomer form is noted for high heat resistance.
Single-ended	Unbalanced, such as grounding one side of a circuit or transmission line.
Skin Effect	The tendency of alternating current, as its frequency increases, to travel only on the surface of a conductor.
Spectrum	Frequencies or radiations that exist in a continuous range and have a common characteristic. A spectrum may be inclusive of many spectrums, e.g., the electromagnetic radiation spectrum includes the light spectrum, radio spectrum, infrared spectrum, etc.
Standing Wave	The stationary pattern of waves produced by two waves of the same frequency traveling in opposite directions on the same transmission line. The existence of voltage and current maxima and minima along a transmission line is a result of reflected energy from an impedance mismatch.
Standing Wave Ratio (swr)	A ratio of the maximum amplitude to the minimum amplitude of a standing wave stated in current or voltage amplitudes.
Static Charge	An electrical charge that is bound to an object. An unmoving electrical charge.

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Stay Cord	A component of a cable, usually a high tensile textile, used to anchor the cable ends at their points of termination and to keep any pull on the cable from being transferred to the electrical connections.
Strain Gauge	A device for determining the amount of strain (change in dimensions) when a stress is applied.
Suppressor	A device used to reduce or eliminate unwanted actions in electric or electronic circuits. For example, a resistance conductor in, or a resistor in series with, a sparkplug cable, to suppress interference which would otherwise affect radio reception in and near the vehicle.
Surge	A temporary and relatively large increase in the voltage or current in an electric circuit or cable. Also called transient.
Swamp	The condition that prevails when too large a signal is applied to an electronic device, resulting in distortion of the output from the device.
Sweep-test	Pertaining to cable, checking frequency response by generating an rf voltage whose frequency is varied back and forth through a given frequency range at a rapid constant rate and observing the results on an oscilloscope. In CATV applications, the structural return loss sweep-test determines internal reflections in the cable. A high structural return loss is desirable.
Teflon®	DuPont Company tradename for fluorocarbon resins. (See FEP and TFE.)
TFE	Tetrafluoroethylene. A thermoplastic material with good electrical insulating properties and chemical and heat resistance.
Thermoplastic	A material which will soften, flow or distort appreciably when subjected to sufficient heat and pressure. Examples are polyvinyl chloride and polyethylene.
Thermosetting	A material which will not soften, flow or distort appreciably when subjected to heat and pressure. Vulcanizable. Examples are rubber and neoprene.
Tinsel	A type of electrical conductor comprised of a number of tiny threads, each thread having a fine, flat ribbon of copper or other metal closely spiralled about it. Used for small size cables requiring limpness and extra-long flex life.
Transfer Impedance	For a specified cable length, transfer impedance is defined as the ratio of internal longitude in a voltage to external current flow on the cable shield. Transfer impedance is used to determine shield effectiveness against both ingress and egress of interfering signals. Cable shields are normally designed to reduce the transfer of interference—hence shields with smaller transfer impedance are more effective than shields with higher transfer impedance.
Transmission Line	An arrangement of two or more conductors or a wave guide used to transfer signal energy from one location to another.
Thermal Rating	The temperature range in which a material will perform its function without undue degradation.
Transducer	A device for transforming mechanical energy to electrical energy, or for transforming electrical energy to mechanical energy, such as in microphones and loudspeakers, but not motors or generators.
Triboelectric Noise	Noise generated in a shielded cable due to variations in capacitance between shielding and conductor as the cable is flexed.
Trunk Cable	See feeder cable.
Turn-key	In CATV, a contractural arrangement in which one party designs and installs the system and "turns over the keys" to another party who will operate the system.
Twin-lead	A transmission line having two parallel conductors separated by insulating material. Line impedance is determined by the diameter and spacing of the conductors and the insulating material and is usually 300 ohms for television receiving antennas. Also called balanced transmission line and twin-line.
UHF	Ultrahigh frequency. The band extending from 300 to 3,000 mc as designated by the Federal Communications Commission.
UL	Underwriters' Laboratories, Inc.
Unbalanced Line	A transmission line in which voltages on the two conductors are unequal with respect to ground, e.g., a coaxial cable.
Unilay	More than one layer of helically laid wires with the direction of lay and length of lay the same for all layers.
V	Volt.
VA	Volt-ampere. A designation of power in terms of volts and amperes.
Velocity of Propagation	The transmission speed of an electrical signal down a length of cable compared to speed in free space. Usually expressed as a percentage.

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VHF	Very high frequency. The band extending from 30 to 300 MHz as designated by the Federal Communications Commission.
Video	Pertaining to picture signals in a television system.
VLF	Very low frequency. The band extending from 10 to 30 kc, as designated by the Federal Communications Commission.
Volt	A unit of electrical pressure. One volt is the amount of pressure that will cause one ampere of current in one ohm of resistance.
Voltage	Electrical potential or electromotive force expressed in volts.
Voltage Drop	The voltage developed across a component or conductor by the current in the resistance or impedance of the component or conductor.
W	Symbol for watt or wattage.
Watt	A unit of electrical power. One watt is equivalent to the power represented by one ampere of current under a pressure of one volt in a dc circuit.
Wave Form	A graphical representation of a varying quantity. Usually, time is represented on the horizontal axis, and the current or voltage value is represented on the vertical axis.
Wavelength	The distance between the nodes of a wave. The ratio of the velocity of the wave to the frequency of the wave.
X	Symbol for reactance.
Z	Symbol for impedance.

Glossary of Terms
Fiber Optic Cable Terminology

Bend Loss	A form of increased attenuation caused by (a) having the fiber curved around a restrictive radius of curvature or (b) microbends caused by minute distortions in the fiber imposed by externally induced perturbations.
Bend Radius	Radius of curvature that a fiber optic cable can bend without any adverse effects.
Buffer	A protective coating over the fiber.
Carrier Frequency	The electromagnetic wave frequency selected to transmit information. Optical carrier frequency is from the infrared, visible or ultraviolet spectrum areas (10^{12}Hz and above).
Cladding	A low refractive index material that surrounds the core and provides optical insulation and protection of the core.
Core	The light transmission part of the fiber with a refractive index higher than that of the cladding.
Dispersion	The cause of bandwidth limitations in a fiber. Dispersion causes a broadening of input pulses along the length of the fiber. Two major types are (a) mode dispersion caused by differential optical path lengths in a multimode fiber, and (b) material dispersion caused by a differential delay of various wavelengths of light in a wave guide material.
Fiber	A single, separate optical transmission element characterized by a core and a cladding.
Fiber Optics	Light transmission through optical fibers for communication or signalling.
Gigahertz (GHz)	A unit of frequency equal to one billion hertz.
Graded-Index	A type of fiber where the refractive index of the core is lower toward the outside of the fiber. It bends the rays inward and also allows them to travel faster in the lower index of refraction region. This type of fiber provides high bandwidth capabilities.
Injection Laser Diode (Source)	Sometimes called the semiconductor diode. A laser in which the lasing occurs at the junction of n-type and p-type semiconductor materials.
KPSI	Tensile strength in thousands of pounds per square inch.
Laser	A coherent source of light with a narrow beam and a narrow spectral bandwidth (about 2nm).
Link	One transmitter and one receiver.
Light Emitting Diode (LED-Source)	A semiconductor device that emits incoherent light formed by the P-N junction. Light intensity is roughly proportional to electrical current flow.
Megahertz (MHz)	Unit of frequency equal to one million hertz.
Micron (μm)	Millionth of a meter = 10^{-6} meter.
Mode	A permitted electromagnetic field pattern within an optical fiber.
Modulation	The coding of information onto the carrier frequency. Modulation means include (among others) amplitude, frequency, or phase, plus many forms of on-off digital coding.
Multiplex	Putting two or more signals into a single channel.
Nanometer (nm)	One billionth of a meter = 10^{-9} meter.
Numerical Aperture (NA)	A measure of the angular acceptance for a fiber. It is approximately the sine of the half-angle of the acceptance cone. $NA = \sqrt{n_1^2 - n_2^2}$ Where n_1 and n_2 are respectively, the refractive index of the core and the cladding.
Optical Waveguide Fiber	A transparent filament of high refractive index core *and* low refractive index cladding that transmits light.
Photodetector (Receiver)	Transforms light into electricity. The silicon photo diode is most commonly used for relatively fast speeds and good sensitivity in the 0.75μm to 0.95μm wavelength region. Avalanche photodiodes (APD) combine the detection of optical signals with internal amplification of photo-current. The internal gain is realized through avalanche multiplication of carriers in the junction region. The advantage in using an APD is its higher signal-to-noise ratio, especially at high bit rates.
Pin-diode	A photodetector used to convert optical signals to electrical signals in a receiver.
Refractive Index	The ratio of light velocity in a vacuum to its velocity in the transmitting medium.
Repeater	A transmitter and receiver combination used to regenerate an attenuated signal.
Receiver	An electronic package that converts the optical signal to an electrical signal.
Single Mode Fiber	A fiber wave guide on which only one mode will propagate. The fiber has a very small core diameter of approximately 8μm. It permits signal transmissions at extremely high bandwidths and is generally used with laser diodes.

Skew Rays	A ray that does not intersect the fiber axis. Generally, a light ray that enters the fiber core at a very high angle.
Source	The means (usually LED or laser) used to convert an electrical information-carrying signal into a corresponding optical signal for transmission by an optical wave guide.
Spectral Bandwidth	The difference between wavelengths at which the radiant intensity of illumination is half its peak intensity.
Speed of Light (c)	2.998×10^8 meters per second.
Splicing	Permanent joining of identical or similar fiber ends without a connector.
Step-index Fiber	A fiber in which the core is of a uniform refractive index, and there is a sharp decrease in the index of refraction at the cladding.
Transmitter	The electronic package that converts an electrical signal to an optical signal.

Multi-Conductor and Paired Cables

Number of Conductors		2 Conductor		3 Conductor		4 Conductor		5 Conductor		6 Conductor		7 Conductor		8 Conductor		9 Conductor	
Conductor Size	**Shielding**	**Code**	**Page No.**	**Code**	**Page No.**	**Code**	**Page No.**	**Code**	**Page No.**	**Code**	**Page No.**	**Code**	**Page No.**	**Code**	**Page No.**	**Code**	**Page No.**
25 AWG and smaller	Unshielded	8430	212											9881	188		
	Spiral	8416 9454	212 212														
	Braid	8429 83317	212 145	8643 83332	28 145	83347	145										
	Overall Beldfoil®	8640● 9180 9211 9271 9851●	44 183 199 89 89							9863	64						
	Overall Foil/Spiral											9665	201				
	Overall Foil/Braid			9628 9788	30 31	9804 9629 9789 8362 8132	55 30 31 54 57	9630 9790	30 31	9631 9791 9805 8363 8133	30 31 55 54 57	9632 9792	30 31	9633 9793 9806 8364 8134	30 31 55 54 57	9634 9795	30 31
24 AWG	Unshielded	8782	218			9562●	36										
	Spiral	8413 9399 9397	197 197 199	8406 9398	197 199												
	Braid	8420 83318 81553	199 145 140, 150	83333	145	83348	145										
	Overall Beldfoil	8641 9452 9501 88641	46 200 44 128	9533	25	9534 9502	25 44	9535	25	9680 9536 9503 89503	46 25 44 128	9537	25	9538 9504 89504 9681	25 44 128 46	9539	25
	Overall Foil/Braid	9841	60	83503 9608 9925	122 32 33	83504 9609 9927 9829 9842 8102 8332	123 32 33 59 60 61 58	9610 9929	32 33	9611 83506 9931 9843 9830 8103 8333	32 123 33 60 59 61 58	9612 9932	32 33	9613 9933 9831 9844 8104 8334	32 33 59 60 61 58	83509 9614 9934	123 32 33
	Individual Beldfoil					9729 8162⊖ 89729	66 72 129			9730 9990 8163⊖ 89730	66 64 72 129			9728 8164⊖ 89728	66 72 129		

⊖Individually Shielded Pairs, Overall Foil/Braid Shield
●Solid Conductors
▲Duofoil Shield

Multi-Conductor and Paired Cables (cont'd.)

For cables with 25 or more conductors, see page 258.

Number of Conductors		10 Conductor		12 Conductor		15 Conductor		16 Conductor		18 Conductor		19 Conductor		20 Conductor		25 Conductor	
Conductor Size	Shielding	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.
25 AWG and smaller (cont'd.)	Unshielded																
	Spiral																
	Braid																
	Overall Beldfoil®																
	Overall Foil/Spiral																
	Overall Foil/Braid	9807 9635 9796 8365 8135	55 30 31 54 57	8633 9811 8136	54 55 57	9636 9797	30 31	8368 8138	54 57	9809	56			9810 8140 8370	56 57 54	9637 9798 8142 8372	30 31 57 54
24 AWG (cont'd.)	Unshielded			9566◉	36									9570◉	36		
	Spiral																
	Braid																
	Overall Beldfoil	89505 9540 9505	128 26 44	9506 9682	45 46	9541	26	9508	45	9509 9683	45 46			9510 9542	45 26	9684 9543	46 26
	Overall Foil/Braid	9832 8105 9615 9935 8335	59 61 32 33 58	83512 9839 8106 8336	123 59 61 58	83515 9616 9936	123 32 33	8108 8338	61 58	9834	59			9835 8110 8340	59 61 58	8112 9617 9937 8342	61 32 33 25
	Individual Beldfoil	8165⊖	72	9784 9991 9731 8166⊖	192 64 66 72			8168⊖	72	9992 9732	64 66			8170⊖	72		

⊖Individually Shielded Pairs, Overall Foil/Braid Shield
◉Solid Conductors
ΔDuofoil Shield

Multi-Conductor and Paired Cables

Number of Conductors		2 Conductor		3 Conductor		4 Conductor		5 Conductor		6 Conductor		7 Conductor		8 Conductor		9 Conductor	
Conductor Size	Shielding	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.
22 AWG	Unshielded	87442 9151 9712 8442 8740● 8795● 9407 88442	134 219 218 38 37 38 176 127	8443 8794● 9491	18, 209 18 177	8444 9794● 88444 8741● 9744 88741	18, 209 18 122 37 39 127	8445	18, 209	9576● 8742● 9745 88742	174 37 39 127	8447▲ 9430	23 19	8488 9421 8757● 9746 88757	210 19 37 39 127	9423 9577●	19 174
	Spiral	8737	52														
	Braid	8422 8437● 8441 9966 83319	200 51 51 194 145	8734 8735 9967 83334	29 28 194 145	9968 83349	194 145										
	Overall Beldfoil®	8450● 8451 8761 9182 9322 9414 9451 9461 9462 83394 88761 89182 87761	48 49 49 89 176 48 49 49 49 148 128 129 134	8771 9363 9770 83395	27 177 27 144	83396 8729 9184●▲ 9512 9302●	144 27 48 178 47	8788	191	8786 9513	190 178			9305● 9514	47 178		
	Overall Foil/Braid	83552	123	9939 83553	34 123	9940 89855● 9696● 9855● 83554 89696●	34 133 63 63 123 133	9941	34	9942 83556	34 123	9943	34	9944	34	9945 83559	34 123
	Individual Beldfoil			8733	190	8302 8728 8723 88723 9328 9406 87723	62 190 68 130 179 67 135			8303 8767● 8777 9329 88777 87777	62 67 68 179 130 135			8304 9330 9891	62 179 187		

Number of Conductors		2 Conductor				3 Conductor		4 Conductor		5 Conductor		6 Conductor		7 Conductor		8 Conductor	
Conductor Size	Shielding	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.
20 AWG	Unshielded	8205 85220 9408	40 147 176	8649 9152	218 219	9492 9403 9404	177 208 208	9444 8464 8484	20 209 209	9445 8463 8485 8455	20 209 209 217	9750	40	9439	20		
	Spiral	8759	52														
	Braid	9272 8227 9207 9815 89272	88 89 89 89 133	89207 83320 9962 8412 8402	133 146 194 198 198	83335 9963 8423 8403	146 194 198 200	83350 9964 8424 8404	146 194 198 200	8425 8405	198 200	9260 8426	29 198	8427	198	8418	198
	Overall Beldfoil	9802● 8762 9464 9154	49 49 49 50	83393 85230 9320	148 148 176	9803● 8772 85240 9364	27 27 147 177	9155	192							85164	148
	Overall Foil/Braid	9463 83602	88 124					83604	124			83606	124				
	Individual Beldfoil							9402	69			9883 9873	69 69			89892 9892 8725	130 187 192

⊖Individually Shielded Pairs, Overall Foil/Braid Shield
●Solid Conductors
▲Duofoil Shield

Multi-Conductor and Paired Cables (cont'd.)

For cables with 25 or more conductors, see page 258.

Number of Conductors		10 Conductor		12 Conductor		15 Conductor		16 Conductor		18 Conductor		19 Conductor		20 Conductor		25 Conductor	
Conductor Size	Shielding	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.
22 AWG (cont'd.)	Unshielded	8456 9158⊛	19 37	8743⊛ 8747 9584⊛ 8457 88743	37 39 174 19 127	8458	19	9160⊛	37	8744⊛ 8748	37 39			9431	19	8459	19
	Spiral																
	Braid																
	Overall Beldfoil®			9306⊛ 9516 8726	47 178 192					9309⊛ 9520	47 178						
	Overall Foil/Braid	9946 8305	34 62	8306 83562	62 124	9947	34	8308	62			83569	124	8310	62	9948 8312	34 62
	Individual Beldfoil			8768⊛ 8778 88778 87778 9331	67 68 130 135 179					8764⊛ 8774 9332	67 68 179						

Number of Conductors		9 Conductor		10 Conductor		12 Conductor		15 Conductor		16 Conductor		18 Conductor		19 Conductor		20 Conductor	
Conductor Size	Shielding	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.
20 AWG (cont'd.)	Unshielded	9455	20			9457 9751	20 40	9458 9755	20 40			9752	40				
	Spiral																
	Braid					9261	29										
	Overall Beldfoil			9890⊛	27			9894⊛	27	85168	148						
	Overall Foil/Braid	83609	124			83612	124							83619	124		
	Individual Beldfoil			9893	187	9886 9874	69 69					9875	69				

⊖Individually Shielded Pairs, Overall Foil/Braid Shield
⊛Solid Conductors
▲Duofoil Shield

Multi-Conductor and Paired Cables

Number of Conductors		2 Conductor				3 Conductor		4 Conductor		5 Conductor		6 Conductor		7 Conductor		8 Conductor	
Conductor Size	Shielding	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.
19 AWG	Unshielded	8486 9596●	40 174			8487●	15	9597●	174			9598●	174				
18 AWG	Unshielded	19204 9708 8460 89740 87740 9571● 9409 9486 19122 8888 19123 8462	214 218 219 127 134 174 176 181 213 213 213 213	19115 19328 19140 8452 19120 8478 19227 9740 8461	213 213 214 214 214 214 214 41 41	19348 19352 19350 19402 19129 19125 8453 19229 19209 19109 9997 9493	215 215 215 215 216 216 216 216 216 216 217 177	8454 8489 9156 88489	217 21, 209 41 122	8465	21	8690	41	8467	21	9157	41
	Spiral	8790	52			8791	29										
	Braid	8208 9250 83321 8428	51 89 146 198			83336	146	83351	146								
	Overall Beldfoil®	9341 9574● 9318 8760 9460 88760 87760	181 174 176 50 50 128 134			19362 19401 19403 9365 8770	215 215 215 177 28	9155 9578● 9552 9418 89418	192 175 179 28 122			9553	179			9554	179
	Overall Foil/Braid	83652	125			83653	125	83654	125			83656	125				
	Individual Beldfoil							9368	180			9773 9369	70 180			9388	180

●Solid Conductors

Multi-Conductor and Paired Cables (cont'd.)

For cables with 25 or more conductors, see page 258.

Number of Conductors		9 Conductor		10 Conductor		12 Conductor		15 Conductor		16 Conductor		18 Conductor		19 Conductor		20 Conductor	
Conductor Size	Shielding	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.
19 AWG (cont'd.)	Unshielded																
18 AWG (cont'd.)	Unshielded	8469	21	9159	41	8466 8691	21 41	8468	21	9161	41	8692	42	8619	21	9626	21
	Spiral																
	Braid																
	Overall Beldfoil					9556	179					9559	179				
	Overall Foil/Braid	83659	125			83662	125										
	Individual Beldfoil					9774 9389	70 180					9775 9390	70 180				

Multi-Conductor and Paired Cables

Number of Conductors		2 Conductor				3 Conductor		4 Conductor		5 Conductor		6 Conductor		7 Conductor		8 Conductor	
Conductor Size	Shielding	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.
16 AWG	Unshielded	8471 85102 85221 9572◉ 9410 9487 19126 19326	42 144 147 175 176 181 213 213	8472 19228 19203 9716 8470 9497 8677	214 214 214 218 219 219 223	85103 9494 19349 19353 19130 19230 19208 19108 9998 9498 19124	144 177 215 215 216 216 216 216 217 219 216	8620	22	9620 9420 85105	22 24 144	7686▲	191	8621 9422 85107	22 24 144	9721	22
	Spiral	8780	52														
	Braid	83322 9952 8408	146 195 199			83337 9953	146 195	83352 9954 8407	146 195 199								
	Overall Beldfoil®	8719 85231 9575◉ 9316 9342	50 148 175 176 181			8618 85241 9366 19363	28 147 177 215	9579◉	175								
	Overall Foil/Braid	9860◉▲ 83702	89 125			83703	125	83704	125			83706	125				
14 AWG	Unshielded	9580◉ 9411 9488 19202	175 176 181 214	9717 8675 8473	219 223 42	9495 19354 8479 19207 19107	177 215 216 216 216	8627 19217	22 217	9623	22			8628	22		
	Overall Beldfoil	8720 9581◉	50 175	9314 9343	177 181	9367 19364	177 215										
	Overall Foil/Braid	83752	137			83753	137	83754	137			83756	137				
12 AWG	Unshielded	8477 9582◉ 9412 9489	42 175 176 181	19201 9718 8673	214 219 223	19206 19106	216 216	19216	217								
	Overall Beldfoil	8718 9583◉	50 175	9312 9344	177 181												
	Overall Foil/Braid	83802	137			83803	137	83804	137			83806	137				

◉Solid Conductors
▲Duofoil Shield

Multi-Conductor and Paired Cables (cont'd.)

For cables with 25 or more conductors, see page 258.

Number of Conductors		9 Conductor		10 Conductor		12 Conductor		15 Conductor		16 Conductor		18 Conductor		19 Conductor		20 Conductor	
Conductor Size	Shielding	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.
16 AWG (cont'd.)	Unshielded	9621 9424 85109	22 24 144			8622 9425	22 24	8623	22	9427	24	8624	22			9429	24
	Spiral																
	Braid																
	Overall Beldfoil®																
	Overall Foil/Braid	83709	126			83712	126	83715	126					83719	126		
14 AWG (cont'd.)	Unshielded					8629	22										
	Overall Beldfoil																
	Overall Foil/Braid																
12 AWG (cont'd.)	Unshielded																
	Overall Beldfoil																
	Overall Foil/Braid																

Multi-Conductor and Paired Cables

25 or More Conductors

Number of Conductors		25 Conductor		30 Conductor		37 Conductor		40 Conductor		50 Conductor	
Conductor Size	Shielding	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.
25 AWG and smaller	Overall Foil/Braid	9637 9798 8372 8142	30 31 54 57	8375 8145	54 57	9638 9799	30 31			9639 8385 9825 8155	30 54 56 57
24 AWG	Unshielded									9585	36
	Overall Beldfoil®	9543 9684	26 46	9544 9515	26 45			9545	26	9546 9525	26 45
	Overall Foil/Braid	9617 9937 8342 8112	32 33 58 61	8345 8115	58 61	9618 9938	32 33			9619 8355 9838 8125	32 58 60 61
	Individual Beldfoil			8175⊖ 9735	72 66					9995 8185⊖	64 72
22 AWG	Unshielded	8459	19	9432 8745 8749	20 38 39			9433	20	9434	20
	Overall Beldfoil			9315 9524	47 178						
	Overall Foil/Braid	9948 8312	34 62	8315	62	9949	34			9950 8325	34 62
	Individual Beldfoil			8766 8776 9334	67 68 180						
20 AWG	Unshielded			9755	40						
	Individual Beldfoil			9879	69						
18 AWG	Unshielded	9626	21	9742	42						
	Overall Beldfoil			9565	179						
	Individual Beldfoil			9777 9392	70 180						
16 AWG	Unshielded	9622	22								

⊖Individually Shielded Pairs, Overall Foil/Braid Shield

Multi-Conductor and Paired Cables

Combination Gages (Unshielded)

Belden Part No.	5 Conductor (Combination)	Page	6 Conductor (Combination)	Page	7 Conductor (Combination)	Page	8 Conductor (Combination)	Page	9 Conductor (Combination)	Page	10 Conductor (Combination)	Page
8455	[2-18 ga. 3-20 ga.]	217										
8446			[2-18 ga. 4-22 ga.]	23								
9686			[3-16 ga. 3-20 ga.]	191								
8447					[2-18 ga. 5-22 ga.]	23						
9405							[2-16 ga. 6-18 ga.]	210				
8448							[2-18 ga. 6-22 ga.]	210				
8449									[2-18 ga. 7-22 ga.]	23		
8784											[2-16 ga. 1-20 ga. 7-22 ga.]	23

Partially Shielded Cables

(Combination of Shielded and Unshielded Conductors)

Belden Part No.	3 Conductor (Combination)	Page	4 Conductor (Combination)	Page	5 Conductor (Combination)	Page
8734	[1–Braid 2–Unshielded]	29				
9685	[2–Beldfoil® 1–Unshielded]	190				
8763	[2–Beldfoil 1–Unshielded]	191				
8732			[2–Braid 2–Unshielded]	51		
8434			[2–Beldfoil 2–Unshielded]	189		
8730			[2–Beldfoil 2–Unshielded]	190		
8724			[2–Beldfoil 2–Unshielded]	191		
8722			[2–Beldfoil 2–Unshielded]	191		
9155			[2–Beldfoil 2–Unshielded]	192		
8788					[3–Individual Beldfoil 2–Unshielded]	191

Paired Cable Finder

Conductor Size		25 AWG and Smaller		24 AWG		22 AWG		20 AWG		18 AWG		16 AWG		14 AWG		12 AWG	
Number of Pairs	Shielding	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.
1	Unshielded	8430	212	8782	218	8740● 8795● 8442 9151 9712 9407 87442 88442	37 38 38 219 218 176 134 127	8205 9152 8649 9408 85220	40 219 218 176 147	8461 9740 8460 9708 9486 9409 9571● 87740 89740	41 41 219 218 181 176 174 134 127	8471 8470 9497 9716 9487 9410 9572● 85221 85102	42 219 219 218 181 176 175 147 144	8473 9717 9488 9411 9580●	42 219 181 176 175	8477 9718 9489 9412 9582●	42 219 181 176 175
	Spiral	9454 8416	212 212	9397	199	8737	52	8759	52	8790	52	8780	52				
	Braid	8429 83317	212 145	8420 81553 83318 8413 9399	199 150 145 197 197	8437● 8441 8422 83319 9966	51 51 200 145 194	9272 8227 9207 9815 89272 89207 9962 83320 8412 8402	88 89 89 89 133 133 194 146 198 198	8208 9250 83321 8428	51 89 146 198	9952 83322 8408	195 146 199				
	Overall Beldfoil®	9271 8640● 9180 9851● 9211	89 44 183 89 199	9501 8641 9452 88641	44 46 200 128	8450● 9414 9462 8761 9461 8451 9451 9182 9322 83394 87761 88761 89182	48 48 49 49 49 49 49 89 176 148 134 128 129	8762 9464 9154 9320 83393 85230 9802●	49 49 50 176 148 148 49	8760 9460 9341 9318 9574● 87760 88760	50 50 181 176 174 134 128	8719 9342 9316 9575● 85231	50 181 176 175 148	8720 9343 9314 9581●	50 181 177 175	9312 8718 9344 9583●	177 50 181 175
	Overall Foil/Braid			9841	60			9463	88			9860●▲	89				
2	Unshielded			9562●	36	8741● 9744 88741	37 39 127			9156	41						
	Overall Beldfoil			9502	44	9302● 9184●▲ 9512	47 48 178			9552	179						
	Overall Foil/Braid	8362 9804 8132	54 55 57	8332 9829 9842 8102	58 59 60 61	8302 9855● 9696● 89855● 89696●	62 63 63 133 133										
	Individual Beldfoil			9729 8162⊖ 89729	66 72 129	9406 8723 9328 87723 88723 8728	67 68 179 135 130 190	9402	69	9368	180						

●Solid Conductors
▲Duofoil Shield
⊖Individually Shielded Pairs, Overall Foil/Braid Shield

Paired Cable Finder

Conductor Size		25 AWG and Smaller		24 AWG		22 AWG		20 AWG		18 AWG		16 AWG		14 AWG		12 AWG	
Number of Pairs	Shielding	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.
3	Unshielded					8742● 9745 88742	37 39 127	9750	40	8690	41						
	Overall Beldfoil®			9503 9680 89503	44 46 128	9513	178			9553	179						
	Overall Foil/Braid	8363 9805 8133	54 55 57	8333 9830 9843 8103	58 59 60 61	8303	62										
	Individual Beldfoil	9863	64	9990 9730 8163⊖ 89730	64 66 72 129	8767● 8777 9329 87777 88777	67 68 179 135 130	9883 9873	69 69	9773 9369	70 180						
4	Unshielded					8757● 9746 88757	37 39 127			9157	41						
	Overall Beldfoil			9504 9681 89504	44 46 128	9305● 9514	22 178	85164	148	9554	18						
	Overall Foil/Braid	8364 9806 8134	54 55 57	8334 9831 9844 8104	58 59 60 61	8304	62										
	Individual Beldfoil			9728 8164⊖ 89728	66 72 129	9330 9891	179 187	89892 9892 8725	130 187 49	9388	180						
5	Unshielded					9158●	37			9159	41						
	Overall Beldfoil			9505 89505	44 128												
	Overall Foil/Braid	8365 9807 8135	54 55 57	8335 9832 8105	58 59 61	8305	62										
	Individual Beldfoil			8165	72			9893	187								
6	Unshielded			9566●	36	8743● 8747 88743	37 39 127	9751	40	8691	41						
	Overall Beldfoil			9506 9682	45 46	9306● 9516	47 178			9556	179						
	Overall Foil/Braid	8366 9811 8136	54 55 57	8336 9839 8106	58 59 61	8306	62										
	Individual Beldfoil			9991 9731 8166⊖ 9784	64 66 72 192	8768● 8778 9331 87778 88778	67 68 179 135 130	9874 9886	69 69	9774 9389	70 180						
7	Overall Beldfoil			9507	45												
	Overall Foil/Braid	8367 9808 8137	54 55 57	8337 9833 8107	58 59 61	8307	62										
	Individual Beldfoil			8167⊖	72												

⊖Individually Shielded Pairs, Overall Foil/Braid Shield
●Solid Conductors

Paired Cable Finder

Conductor Size		25 AWG and Smaller		24 AWG		22 AWG		20 AWG		18 AWG		16 AWG		14 AWG		12 AWG	
Number of Pairs	Shielding	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.
8	Unshielded					9160●	37			9161	41						
	Overall Beldfoil®			9508	45			85168	148								
	Overall Foil/Braid	8368 8138	54 57	8338 8108	58 61	8308	62										
	Individual Beldfoil			8168⊖	72												
9	Unshielded					8744● 8748	37 39	9752	40	8692	42						
	Overall Beldfoil			9509 9683	45 46	9309● 9520	47 178			9559	179						
	Overall Foil/Braid	9809	56	9834	59												
	Individual Beldfoil			9992 9732	64 66	8764● 8774 9332	67 68 179	9875	69	9775 9390	70 180						
10	Unshielded			9570●	36												
	Overall Beldfoil			9510	45												
	Overall Foil/Braid	8370 9810 8140	54 56 57	8340 9835 8110	58 59 61	8310	62										
	Individual Beldfoil			8170⊖	72												
11	Unshielded					8753●	38										
	Overall Beldfoil					9521	178			9563	179						
	Individual Beldfoil			9733	66	8765● 8775 9333	67 68 179	9876	69	9391	180						
12	Unshielded					9747	39			9741	42						
	Overall Beldfoil			9684	46												
	Overall Foil/Braid	8372 9812 8142	54 56 57	8342 9836 8112	58 59 61	8312	62										
	Individual Beldfoil			9993 9734	64 66	9768	68	9877	69	9776	70						
13	Unshielded					8754●	38										
	Overall Foil/Braid	9813	56														
15	Unshielded					8745● 8749	38 39	9755	40	9742	42						
	Overall Beldfoil			9515	45	9315● 9524	47 178			9565	179						
	Overall Foil/Braid	8375 8145	54 57	8345 8115	58 61	8315	62										
	Individual Beldfoil			9735 8175⊖	66 72	8766● 8776 9334	67 68 180	9879	69	9777 9392	70 180						

⊖Individually Shielded Pairs, Overall Foil/Braid Shield
●Solid Conductors

Paired Cable Finder

BELDEN
COOPER INDUSTRIES

Conductor Size		25 AWG and Smaller		24 AWG		22 AWG		20 AWG		18 AWG		16 AWG		14 AWG		12 AWG	
Number of Pairs	Shielding	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.	Code	Page No.
17	Individual Beldfoil*			9736	66	9769	68										
18	Overall Foil/Braid	8378 9819 8148	54 56 57	8118 8348 9837	61 58 60	8318	62										
	Individual Beldfoil			9994 8178⊖	64 72												
19	Unshielded					8755● 9748	38 39			9743	42						
	Overall Beldfoil			9519	45	9319● 9526	47 178										
	Individual Beldfoil			9737	66	8769 9335	68 180										
23	Unshielded					8756● 9749	38 39										
25	Unshielded			9585●	36												
	Overall Beldfoil			9525	45												
	Overall Foil/Braid	8385 9825 8155	54 56 57	8355 9838 8125	58 60 61	8325	62										
	Individual Beldfoil			9995 8185⊖	64 72												
27	Unshielded					8746● 8750	38 39										
	Overall Beldfoil					9327● 9527	47 178										
	Individual Beldfoil			9738	66	8773 9336	68 180										
31	Overall Foil/Braid	9814	56	9840	60												
37	Individual Beldfoil					9767	68										
38	Overall Beldfoil					8752●	48										
50	Overall Beldfoil			9550	45												
51	Overall Beldfoil					8751● 9551	47 178										
	Individual Beldfoil					9337	180										
102	Overall Beldfoil					9753●	47										

●Solid Conductors

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Belden Trade #	Page	Belden Trade #	Page	Belden Trade #	Page	Belden Trade #	Page	Belden Trade #	Page	Belden Trade #	Page	Belden Trade #	Page	Belden Trade #	Page	Belden Trade #	Pag
8000	211	8167	72	8340	58	8456	19	8643	28	8770	28	9171	183	9314	177	9411	176
8002	211	8168	72	8342	58	8457	19	8649	218	8771	27	9175	184	9315	47	9412	176
8011	221	8170	72	8345	58	8458	19	8660	220	8772	27	9176	183	9316	176	9414	48
8012	221	8175	72	8348	58	8459	19	8661	220	8773	68	9180	183	9318	176	9415	203
8013	221	8178	72	8355	58	8460	219	8662	220	8774	68	9182	89	9319	47	9416	203
8018	211	8185	72	8362	54	8461	41	8663	220	8775	68	9184	48	9320	176	9417	203
8019	221	8196	211	8363	54	8462	213	8668	220	8776	68	9192	90	9322	176	9418	28
8020	221			8364	54	8463	209	8669	220	8777	68			9327	47	9420	24
8021	221	8205	40	8365	54	8464	209	8670	220	8778	68	9201	79	9328	179	9421	19
8022	221	8208	51	8366	54	8465	21	8673	223	8780	52	9203	79	9329	179	9422	24
8023	221	8212	83	8367	54	8466	21	8675	223	8782	218	9204	80	9330	179	9423	19
8024	221	8213	78	8368	54	8467	21	8677	223	8784	23	9207	89	9331	179	9424	24
8025	221	8214	77	8370	54	8468	21	8678	223	8786	190	9208	76	9332	179	9425	24
8049	205	8215	76	8372	54	8469	21	8690	41	8787	190	9209	87	9333	179	9427	24
8050	205	8216	85	8375	54	8470	219	8691	41	8788	191	9211	199	9334	180	9429	24
8051	205	8218	86	8378	54	8471	42	8692	42	8790	52	9212	78	9335	180	9430	19
8052	205	8219	79	8385	54	8472	214			8791	29	9221	86	9336	180	9431	19
8053	205	8221	81			8473	42	8700	86	8794	18	9222	90	9337	180	9432	20
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227004	163	228716	167	9K75006	102	9R28037	96	8S0P040	110	9C4J016	112	9ETP014	111				

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Special Market Application

This index is intended to be used as a guide in selecting cables for computer or industrial control applications. The cables listed herein are not necessarily the only cables which would be appropriate for the applications listed. For further information regarding cable performance characteristics, contact Belden's Product Engineering Group 317/983-5200.

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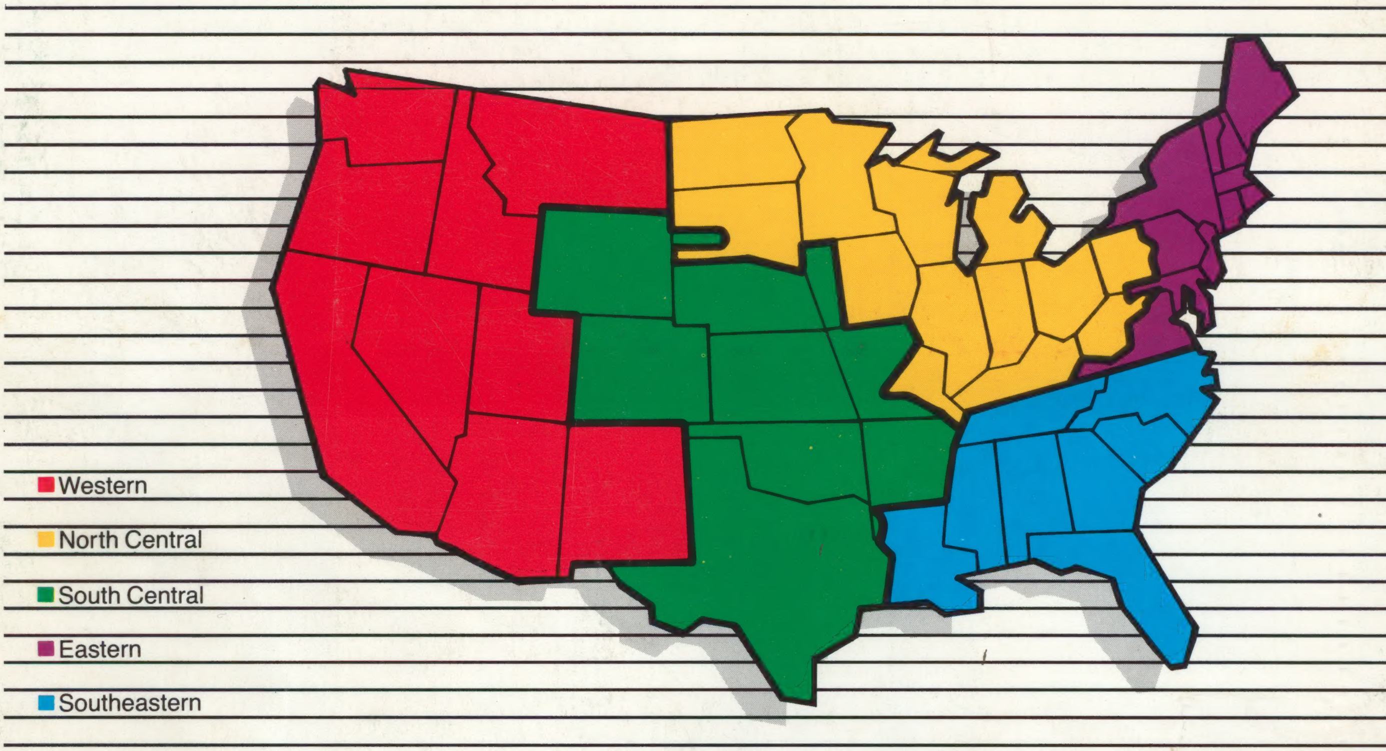

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